

A Shift in Role:  
The Perspectives of Ontario Secondary Principals Working in Data-Driven Environments

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## Abstract

This study occurred in 2009 and questioned how Ontario secondary school principals perceived their role had changed, over a 7 year period, in response to the increased demands of data-driven school environments. Specifically, it sought to identify principals' perceptions on how high-stakes testing and data-driven environments had affected their role, tasks, and accountability responsibilities. This study contextualized the emergence of the Education Quality and Accountability Offices (EQAO) as a central influence in the creation of data-driven school environments, and conceptualized the role of the principal as using data to inform and persuade a shift in thinking about the use of data to improve instruction and student achievement. The findings of the study suggest that data-driven environments had helped principals reclaim their positional power as instructional leaders, using data as an avenue back into the classroom. The use of data shifted the responsibilities of the principal to persuade teachers to work collaboratively to improve classroom instruction in order to demonstrate accountability.

## Table of Contents

Abstract	ii
CHAPTER ONE: PROBLEM CONTEXT	1
Background and Context	1
The Problem Statement	6
Purpose of the Study	7
Research Question	7
Theoretical Framework	8
Rationale and Significance	9
Scope and Limitations of the Study	11
Researcher's Bias	11
Outline of the Remainder of the Document	12
CHAPTER TWO: REVIEW OF RELEVANT LITERATURE	15
The Changing and Increasingly Complex Role of the Principal	15
The Additional Demands of Data-Driven Decision Making	23
CHAPTER THREE: METHODOLOGY AND METHODS	31
Generic Qualitative Research	31
Participant Selection	33
Interviews	34
Reflexive Journal	37
Data Collection	38
Data Analysis	39
Limitations of the Method	41
Ethical Considerations	41
CHAPTER FOUR: PRESENTATION OF FINDINGS	43
Sample and Participant Demographics	43
Themes	44
Summary of Findings	61
CHAPTER FIVE: SUMMARY, DISCUSSION, AND IMPLICATIONS	66
Summary of the Study	66
Discussion	68
Implications	79
Conclusion	89
References	92
Appendix A: Frequency of Codes	98
Appendix B: REB Ethics Clearance	99
Appendix C: Framework for Data-Driven Environments	100

## CHAPTER ONE: PROBLEM CONTEXT

This study inquired into how the role of Ontario secondary school principals has changed as a consequence of the increased demand that standardized student test data be collected and used to inform educational decisions in their schools. To do this, the researcher interviewed 4 purposefully selected principals, who had at least 7 years of administrative experience, on how data-driven work environments had changed their administrative role and the tasks they perform. This research began in 2009, and the 7 year timeframe was selected to ensure the participants had held the role of principal prior to 2001 when provincial wide, standardized testing of student achievement was first included in secondary schools. The literature suggests that principals play a key role in leading effective schools, yet little research has been done on how the move to data-driven work environments has affected their role.

This chapter sets the context for this study. It briefly reviews the recommendations of the Royal Commission on Learning (RCL; 1995) that focused schools on standardized test data as a primary source for educational decision making. Then, the chapter outlines the educational problem the study was directed around, the purpose of the study, the central research question, and the theoretical frameworks that guided the research and the data analysis. Next, the chapter identifies the significance of this research, and the scope and limitations of this study. The chapter concludes with an overview of how the thesis document is organized.

### Background and Context

In 1994, the Ontario NDP government established the Royal Commission on Learning (RCL) to review the state of public education in Ontario, and to provide

recommendations for change. Part of the mandate of the RCL was to hold a series of province-wide discussions “to ensure that Ontario’s youth are well-prepared for the challenges of the twenty-first century” (p. 3). In their final report, *For the Love of Learning* (1994), the RCL reported a lack of public confidence in Ontario politics, in the economy, and in public schools. They also suggested that the Ontario public wanted government sectors, such as education, to work more openly to provide greater accountability to the public. They noted that the public wanted schools to better prepare students for competition in a global market place (p. 6). In 1995, a newly elected Conservative government released the findings from the RCL, and brought into legislation many of the recommendations contained in the Report.

The RCL (1994) outlined 167 recommendations intended to promote wide-scale change in the Ontario education system. Recommendations 51, 52, and 54 focused on the development of standardized student test data that could be used to create data-driven accountability processes. Recommendation 51 suggested that an independent, arm’s-length testing agency, to be called the Office of Learning Assessment and Accountability, later called the Education Quality and Accountability Office (EQAO), should be created. This agency would develop standardized, province-wide assessments of student learning at both the elementary and secondary levels, including a grade 10 literacy test requirement for graduation (Recommendation 52). Recommendation 54 stated that student achievement data should be collected and reported to the public. When EQAO was established in 1996 as part of the Secondary School Reform Act (1996), it assumed responsibility for the development and implementation of both standardized testing (Recommendation 54) and the literacy test (Recommendation 52).

The Secondary School Reform Act (1996) created a number of changes in education that were intended to restore a perceived loss of public confidence (Brown, 2004). Along with the implementation of EQAO testing, the Secondary School Reform Act condensed the existing 5-year high school program into 4 years, removed principals from the teachers' union, and charged the principal with the responsibility of demonstrating improved student learning through measurable achievement data. In this way, data analysis and reporting were placed at the center of school reform in Ontario, contributing to the creation of a data-driven environment in schools (Volante, 2007). Although testing has had a long history in education, prior to the establishment of EQAO, Ontario had almost no history of large scale, externally administrated standardized tests that carried high-stakes for students, schools, districts, and principals (Earl & Torrance, 2000). Today, the use of standardized test data to measure student achievement has become rooted in Ontario schools as a result of EQAO legislation (Brown).

EQAO continues to collect and publicly report on student achievement scores in math and literacy as a measure of accountability for schools. Although EQAO is not directly tied to school funding, it has contributed to a culture of data-driven decision making in which schools are asked to demonstrate improved student achievement on standardized tests. For example, at the secondary level, the successful completion of the grade 10 literacy test is a requirement for graduation. As a result of EQAO legislation, standardized tests, and test-score reporting, data collection and analysis have become the norm in Ontario public schools, often driving instruction, goal setting, programming decision making, and school culture (Chudowsky & Pellegrino, 2003; Earl, 1999). In this

regard, accountability in education has been interpreted with reference to improved test scores and improved student learning.

Earl and Katz (2006) suggest that the focus on data-driven instruction and data-driven environments in Ontario has influenced the role and responsibilities of principals who are ultimately charged with the management and leadership of this educational policy shift. Earl and Katz state that,

accountability for improvement situates educators as the prime consumers of data in order to make informed decisions. This means thinking about accountability and using data [must be] part of a leader's repertoire for organizational improvement [and] not because it is mandated. (p. 17)

The wave of data-driven initiatives in the late 1990s and early 2000s not only represented a "contemporary movement in standard-based reform" (Hargreaves & Goodson, 2006), but also represented a challenge for principals who found themselves working in data-driven environments. Both EQAO and the Secondary School Reform Act (1996) were formed in a political arena that included principals as policy actors but that provided them with limited supports for implementation (Perreault, 2000, p. 705). In his research on the impact of high-stress testing in the United States, Perreault found that it was unclear if principals had accepted the ideology of high-stakes, high-stress standardized testing. He concluded that "principals were seen as part of the overall control mechanism rather than as true instructional leaders" (p. 705), and he noted that their voice had been silenced because of the "pressure of state testing programs" (p. 705) and the political importance of improving test scores. Perreault suggested that because testing would likely remain central in schools, there was a need to understand the

principal's perspective towards standardized tests as the public demanded an increase in accountability and student achievement (p. 706).

The speed with which data-driven policy initiatives were mandated also created a role ambiguity for principals since their role in data-driven accountability was unclear (Goodwin, Cunningham, & Childress, 2003). In Ontario, as a consequence of the Secondary School Reform Act (1996), principals found themselves in a new working relationship with teachers because they had been removed from the teachers' union. This occurred at the same time that EQAO was organizing standardized testing in schools. As principals were adapting to their change in administrative position, Volante (2007) argues that they also experienced how standardized test-score data were, "increasingly being used as the main, and in many cases, sole indicator of system effectiveness [and] teachers, administrators, district leaders, and other educational personnel are becoming more and more preoccupied with improving their relative standing on these external tests," (p. 2).

The mandated changes of the duties of the principal, and the addition of EQAO testing in schools, created a role conflict for principals because of the perceived pressure to secure high test scores (Leithwood & Jantzi, 2008). Although the pressures and stresses of standardized tests on both students and teachers are well documented in educational research (Kane, 2002; King, 2002; Kohn, 2000), Leithwood and Jantzi (2008) argue that the challenges and pressures principals encounter when mandated to report on and respond to standardized test scores are not clear. Similarly, in their research on principals' role conflicts in the era of accountability, Goodwin et al. (2003) found that principals encountered a role conflict between what they perceived as important, such as



working with daily student conflicts, and the perceived pressure to secure high test scores (p. 29). Literature on educational leadership suggests that principals must be able to bridge the gap between what they perceive as important and what they are mandated to do, adding further to the role conflicts and demands of the job. Gardner (1990) states that “leadership is the process of persuasion or example by which an individual induces a group to pursue objectives held by the leader or shared by the leader and his or her followers” (p. 17). He argues that it is the interaction and communication between leader and worker that shape the direction of any initiative. Gardner’s argument implies that if school reforms, like those in Ontario, are to be successful, the school principal will need to balance the demands of EQAO with the existing demands of their role.

Mackey, Pitcher, and Decman (2006) state, “the role of the principal is dynamic and changing. In fact, changes in the work environment of education have caused both role ambiguity and role overload for school principals [...] as educational communities demand more data-driven accountability measures” (p. 39). Mackey et al. suggest that the pressure of using data and responding to standardized test scores has, indeed, affected the role of the principal.

### The Problem Statement

As a result of EQAO testing, principals are now asked to be data literate and work in a data-driven, decision-making culture. EQAO policy has added to the responsibilities of principals, causing them to spend more time working with student achievement data. According to Earl and Katz (2006), principals working in cultures of data are expected to centre educational decision making on student achievement data.

The trend to data driven decision-making in schools occurred during a time of extensive educational reform in Ontario. According to Hargreaves and Goodson (2006), at this time principals were also asked to become transformational leaders able to transform data into meaningful practices for teachers. At the same time, Ontario principals were also removed from the teachers' union. This shifted their association with teaching and learning as instructional leaders to a more traditional administrative role. The literature suggests that the number and rate of changes to the duties of the principal have changed the roles that principals play. Principals are challenged to find ways to include teachers, and other stakeholders, in the process of data-driven decision making as the power to make decisions now falls into the hands of those who control the data. The problem of aligning data-driven policy mandates with collaborative, principal-teacher relationships is now created for principals.

#### Purpose of the Study

The purpose of this study was to inquire into how the role of Ontario secondary school principals has changed as a consequence of the increasing demand that standardized student test data be used to inform educational decisions in their schools. Specifically, it sought to identify principals' perceptions on how a school environment that is increasingly focused on measuring student achievement using standardized testing data has affected their role and tasks. It aimed to understand how principals, who had at least 7 years of administrative experience in Ontario at the time of this study, perceived that the demand to use EQAO test data had changed their role as principal.

#### Research Question

The central question that guided this qualitative study was: How do secondary school principals, with over 7 years of administrative experience, perceive that their role has changed in response to the demand that they use EQAO test data to improve instruction in their schools?

Several subquestions were used to guide this research:

1. How do secondary school principals understand and demonstrate accountability differently?
2. How do secondary school principals approach instructional leadership differently?
3. How do secondary school principals lead/manage the school differently?
4. How do secondary school principals spend their time differently?
5. How do secondary school principals perceive their work environment has changed as a result of data-driven initiatives?

### Theoretical Framework

The literature that informed the development of the research questions was centred on the role of the principal. The theoretical framework was informed by Goodwin et. al.'s (2003) model of the changing role of the secondary principal. Their "Principal's Role Questionnaire" directs attention to four central conflicts that principals experience when what they are expected to do in their work is different from what they actually do. In their research on the changing role of the principal in an era of accountability, they concluded that principals identified both a role conflict and an accountability conflict. The *role conflict* occurred when there was a conflict between their role as instructional or moral leader, and their role as a manager and political leader. The *accountability conflict* occurred when the needs of students conflicted with the need

to meet standards and increase test scores (p. 27). Goodwin et al. also found that principals perceive a “disconnect between what they perceive as important and what are the daily demands of the job” (p. 29) and they identified a “conflict between being inclusive and being accountable, between meeting the diverse needs of [all] students and meeting [the demands of] high standards” (p. 30). These conflicts were used to inform the research and interview questions for this study.

A second framework that was used to guide the discussion of the findings was informed by Fowler’s (2004) model for understanding power and education policy. Fowler outlines several definitions of power in education policy, and the *Three Dimensions Model of Power* argues that all three dimensions (explicit power, mobilization of bias, and shaping of consciousness) operate simultaneously, and that all types of power are used in the education system (p. 30). Fowler describes the explicit use of power and notes that it consists “of explicit exercises of power which are often directly observable” (p. 30). For example, The Ontario Ministry of Education used its legal authority to pass EQAO legislation and to mandate its use in all public schools. The second dimension of power Fowler outlines is the power of mobilization or implicit power. In this dimension, the exercise of power is accepted yet “few or none of the actors may realize that power is being exercised” (p. 35). Fowler describes the third dimension of power as the shaping of consciousness, the power to secure the compliance of others (p. 39). The definitions and three dimensions of power were used in the data analysis of this study to organize the participants’ responses and to unpack the themes that were uncovered through the interview process. The dimensions of power were used to guide the discussion on the findings of this research.

## Rationale and Significance

Although there is research on the impact of standardized tests on students, teachers, and classroom instruction (Kane, 2002; King, 2002; Kohn, 2000), there is little research focused on how using standardized test data to inform decision making has changed the role of principals. Goodwin et al. (2003), Earl and Katz (2006), Lambert (2003), and Fullan (2001) examined the role of the principal from the lens of accountability and found that principals describe a number of role conflicts when asked to work with test-score data. The lack of available research on principals' perceptions of their role in data-driven environments, and my own experience as a classroom teacher who has had to cope with data-driven initiatives, suggested the need for a study of this nature. Ultimately, it is principals who are responsible for the operation of schools and for student learning and, therefore, it was important to inquire into their perspectives on how these additional demands have affected their already very demanding role.

EQAO has placed standardized tests at the center of educational reform. We do not know how this focus on testing and data has affected the role of the principal, yet it is likely that this mandated change has had some effect. As Sackney and Walker (2006) state, "principals have to create a culture that sustains and develops trust, collaboration, risk taking, innovation, shared leadership, and that is data sensitive" (p. 342). If the principal plays a pivotal role in schools, then understanding how the principals' role may have changed over the last 7 years is important.

As the Ontario Ministry of Education continues to center policies and initiatives on student achievement measured through EQAO, it is clear that principals will continue to work in data-driven environments. In the past, principals have been asked to be

instructional leaders, moral leaders, symbolic leaders, and efficient leaders, to name a few. The trend to data-driven practice appears to have added *researcher* to that role. This research aimed to add to our knowledge of the role of principals and the actual practices of their work. Current boards of education, supervisory officers, principals, teachers, and policymakers should benefit from the understanding of the impact of standardized testing on principals' role. Similarly, teachers who plan on moving into the area of school administration may find it beneficial to understand the pressures and influences that surround standardized testing.

#### Scope and Limitations of the Study

This study focused on the perspectives of 4 practicing secondary school principals in southern Ontario who had served as school administrators prior to 2001, when school testing for accountability purposes intensified. Data collection took place over a 3-month period, and was confined to the principals' retrospective views on how their role had changed over the last 7 years. Although education in Ontario is a provincial jurisdiction, and the move to data-driven environments is provincial in scope, this study was delimited to principals in one school board in southern Ontario that had advanced the Ministry mandate of using standardized test data to inform school improvement plans and instruction. Data for this study were collected using semistructured interview questions and a reflexive journal. No attempt was made to verify their perceptions through in-school observations, and no attempt was made to obtain perspectives from elementary school principals, teachers, or other stakeholder groups. No attempt was made to compare or generalize the data to other high schools or a larger population.

#### Researcher's Bias

As a classroom teacher who has worked with data and test scores, I had observed that principals are expected to work in data-driven environments, using EQAO test scores as a baseline for data analysis. I have experienced, in my role as a classroom teacher, how EQAO has influenced a number of educational policy directions, teacher training objectives, and instructional initiatives. From my experiences working with test-score data and classroom goal setting, I have experienced the additional pressures standardized test data has placed upon a teacher's daily practices. I often observed that much focus was given to data-driven, decision-making processes. In my opinion going into this research, this focus tended to direct attention away from intuitive thinking, knowledge-based experience, and students' ethical and social developments in school based decision making. From my perspective, it appeared that the goal of test data analysis often reflected more of a political influence than one of student learning and improvement. I questioned the lack of time available to teachers to critically reflect on the validity of EQAO testing and data collection. I assumed that the political pressures of high-stakes testing, or the lack of critical reflection on the value of EQAO had impacted principals in a similar manner.

To guard against bias, a mock interview was completed to ensure the interview questions were objective and did not promote my bias as a teacher who had worked with EQAO data. During data analysis, the participants' responses were constantly compared and reread to ensure the voices of the participants were clear and distinct from my own. Finally, a reflexive journal was used for data collection and analysis to reflect the participants' responses and allowed me to make my bias explicit.

#### Outline of the Remainder of the Document

The remainder of this document is divided into four chapters. Chapter Two outlines a review of related literature. The review is divided into two central categories: the changing and complex role of the principal, and demands that data-driven analysis has added to the role of the principal. The literature reviews the various roles of the principal as instructional and moral leader, manager and leader of politics and policy, transformative leader, agent of change, team builder, and leader of professional learning communities. Research that identifies the increased work demands of principals, and the additional duties they encounter in data-driven environments were also reviewed. The review of literature suggested that the leadership of the principal plays a key role in effective schools.

Chapter Three outlines the research methodology and the procedures used to collect and analyze the data. It reviews qualitative methodology, interviewing as a method for data-collection, and the processes followed for data analysis. The limitations of the research methodology, and the ethical considerations required for this study are also reviewed.

Chapter Four presents the findings of this study. It reviews demographic data and presents five themes uncovered through the constant comparison of participant responses. The first theme presented is the *perceptual shift about data*. This theme represents the initial experiences of the participants when EQAO was introduced in secondary schools 7 years ago and how their perceptions have changed over time. The second theme is *using data to shift the perceptions of the school*. This theme outlines how the principals perceive their duties and tasks have changed as users of data. The next theme describes the principals' *use for instructional leadership*, and as *a focus for teacher collaboration*.



It is here that principals described themselves as persuading others, through collaborative learning models, to see the benefits of data-driven decision making in relation to increased student achievement. The final theme describes the *changing perceptions of accountability*.

Chapter Five presents a discussion on the findings of this research. The findings suggest that the principals did perceive that their role had changed in response to the increase demand for data-driven decision making. It suggests that the principals perceived that valuable knowledge could be gained from test data, and that that knowledge could be used to improve student learning. The chapter discusses how the principals perceived that they had regained some control over curriculum and instruction, and how their positional authority and experience working with test data has, in fact, helped to simplify their role. The chapter concludes by discussing the influence this research may have on future practice, research, and theory in educational leadership.

## CHAPTER TWO: REVIEW OF RELEVANT LITERATURE

The research on school principals suggests that they play a central role in implementing successful school improvement and change. In Ontario, with the introduction of mandatory high-stakes testing at the center of educational reforms, principals are expected to use student achievement data to inform school improvement plans. The literature suggests that this added expectation has added to their role, and given the principals' pivotal role in successful change, it is important that we understand how this change has affected their role. This chapter reviews literature on the changing role of the principal. The first section reviews the changing role of the principal and the increasing demands of the principal over time. The second section reviews the demands that data-driven environments have added to the role of the principal.

### The Changing and Increasingly Complex Role of the Principal

What do principals do in their work as leaders, managers, and administrators? The literature suggests that their role is difficult to define given its complex and changing nature. Over the last 20 years, principals have been expected to assume several roles, each role adding to the responsibilities of the principal. For example, principals are now expected to assume the role of instructional leader, moral and transformational leadership, change agent, relationship and team builder, community builder, and political leader. Each of these roles will be highlighted in the section below.

#### *Instructional Leadership*

In their review of the literature on how principals influence schools, Leithwood and Montgomery (1986) identified various dimensions of the principal's role and concluded that the most effective principals have strong goal-setting skills, decision-

making skills, and that they are highly effective problem solvers (p. 17). They also concluded that effective principals move beyond a management role to focus their efforts on school improvement and growth. Furthermore, they assumed an active role as instructional leaders in their schools.

The instructional leader focuses attention on leadership functions directly related to teaching and learning (Murphy, 1988). In his review of literature on instructional leadership, Murphy found that attention to instructional leadership added to the practices of school principals as they assumed responsibility for the assessment and instruction of curriculum. Murphy found that instructional leadership increased the demands of the principal to be more closely involved in the evaluation of teacher instruction. Principals are additionally challenged to define management decisions in terms of learning. Similarly, Leithwood's (1986) research into the role of the principal in policy implementation and school improvement suggests that effective principals are instructional leaders who guide teachers and students through curriculum and who help them to improve classroom instruction strategies. Leithwood (1986) adds that principals use their time to both solve problems and improve teacher instruction.

Marks and Printy (2003) concluded in their research on principal leadership and school performance that principals in "highly academic performing schools are able to transform policy into practical instructional strategies that improve classroom instruction" (p. 372). They found that the role of the principal as an instructional leader is increasing complex when principals are charged with the responsibility to transform policy into meaningful practices for teachers. The transformation of policy to practice has added to the role principals play as instructional leaders as they are to demonstrate an

integration of transformational and instructional leadership strategies. They found that principals increasingly spend more time on policy management and less time on improving classroom instruction.

### *Moral and Transformative Leadership*

Sergiovanni (1992) adds to the responsibilities of the principal by stating that principals assume the role of a moral authority and a steward of transformational change. He states that, "the responsibilities of [moral leadership] simply require that obligations be met, regardless of obstacles" (p. 7). He argues that principals must become leaders of leaders, guiding others through the moral responsibility to improve learning for all students. He states that effective moral leadership is interconnected with transformative leadership. This interconnectivity "is achieved through team building, leadership development, shared decision making, and striving to establish a value of collegiality" (p. 79). Both Leithwood (1986) and Sergiovanni (1992) agree that principals must work to develop a team, to influence goal setting, and to support the goal of school improvement and student achievement.

Leithwood (1994, 1995) found in his research on leadership for school restructuring that principals must be transformational leaders in school change, adding to the expectations of the school principal. He argues that transformational principals are *mission centered* and must work to build group consensus about school goals and priorities. He suggests that the role of the principal has changed into a complex role that is responsible for the transformational, cultural shifts of schools during times of restructuring. His research found that principals are now responsible for building collaborative work environments and for developing structures to increase participation

in school decisions. Fullan (2001) supports Leithwood's (1994, 1995) finding that the duties of the principal have changed to include a transformative perspective. In his analysis of the change process, Fullan (2001) found that principals must understand that the goal of a transformative principal is not to "innovate the most" but rather to develop "a capacity to solve complex problems through reflective practice" (p. 171). Fullan (2001) states that the principal must understand the fear that change creates, and must focus on the perspectives of people. He suggests that a transformational leader is responsible for creating a culture of collaboration that "seeks, critically assesses, and selectively incorporates new ideas or practices" (p. 177).

### *Change Agent*

Although Sergiovanni (1992) conceptualizes the principal as moral authority, and Leithwood (1995) as a transformative leader, Fullan (2003) places the principal in the context of change and accountability. He found in his research on change in education that because of increased accountability measures and the increased focus on student achievement, the role of the principal as an agent of change must be one of inquiry and informed professional judgment. He found that principals who lead their school communities as a collective group of people have developed the capacity to build and lead teams, and are more successful in implementing change efforts. Fullan (2003) argues that there have been a number of new, or reframed, initiatives in education and that principals may not have the capacity to meet the new challenges of accountability. He found that "in the previous five years [,] on average, 90% of principals and vice principals reported an increase in demands" (p. 14), that they are concerned with the complexity of their jobs as managers, leaders, and administrators; and that they do not

have the time to deal with all new initiatives. He states that “the problem is the lack of opportunity for principals to shape the agenda and the limited resources at their disposal to make a difference” (p. 14). Fullan (2003) suggests that many principals feel a sense of role ambiguity. He also suggests that recent policy development, or lack thereof, has failed to define the participation of the principal.

### *Team Builder*

Most research and literature in the 2000s supports the view that the role of the principal is increasingly complex due to the need for sustainable school improvement teams to meet the increased demand for accountability. Reitzug, West, and Angel (2008) examined the role of the principal as a team builder in the context of high-stakes accountability and state-wide testing. In their interviews with 20 principals, they found that principals most commonly describe their work as either relational or linear (p. 697). Principals who viewed their work as relational noted that their daily practice was not focused on working directly with instructional programs, but rather most time was spent building relationships between teachers. They believed their role required them to “stay out of test scores” (p. 697) as they felt they did not have the resources to directly affect them. Other principals viewed their work as a linear or cause and effect relationship. These principals suggested that much of their time was spent aligning curriculum standards with test scores in order to demonstrate increased accountability (p. 701). The study found that 14 out of 20 principals reported that they used data from test scores to drive instruction, agreeing that much of their time was spent responding to test scores in order to improve student achievement (p. 702). Whether principals viewed their work as relational or linear, all agreed that issues of accountability, such as responding to test

scores, have increased their role responsibility. Principals also reported that more professional development for principals in the area of relationship building and team building was necessary.

Osterman, Crow, and Rosen (1997) studied principals' perceptions of their work life and demands. They used a survey to identify the duties of a human relations leader versus the duties of a traditional manager. Principals were asked to identify individuals who most influenced the way they perform, and what they believe they required to be effective. They found that principals value their relationships with their teachers, and that they valued student achievement most. However, they found that principals spend most of their time on school management and problem solving. Principals identified several supports they perceive necessary to perform effectively. Of these, gathering data was the lowest rated item and relationship building was the highest rated. This study suggests that although principals perceive their role to be one of change, most principals believe their duties are centered on human relations, working with people to solve problems.

Hallinger, Murphy, and Hausman (1992) examined principals' perceptions and concepts of restructuring and the potential impacts of change. Fifteen principals were interviewed. When asked in general terms about restructuring, principals perceived that their voices were not heard and that there were too many external influences (p. 334). They perceived a lack of power in school restructuring and instead stated that a shared vision and relationship building were most significant in facilitating school change. They reported that their role is to build teams of people who can work together to achieve school based change.

### *Community Builder*

A significant body of research has examined the capacity of principals to work with, develop, and lead teams to create collaborative working relationships or collaborative learning communities. Mitchell and Sackney (2006) suggest that learning communities include “the way the school principal works on behalf of teaching and learning” (p. 626). They suggest that the principal has a pivotal role in the creation of learning communities and that they must build the capacity to lead a group of individuals to generate a common understanding, shared vision, and shared values. Through their case study research, Mitchell and Sackney report that the “successful principal views the learning of colleagues as the centerpiece of leadership” (p. 635). They suggest that the principal in a learning community creates a shared vision, a collaborative work environment, a shared understanding of reflective practice and data-based decision making, and a culture of trust (p. 626). Lambert (2003) supports the view that the role of the principal in learning communities is centered on human relationships. She argues that principals must be able to create an environment of shared vision and inquiry-based decision making (p. 6). Lambert also suggests that principals need to continue to build their capacity to work with teams of people in order to achieve improved student success. The principal’s role in a learning community is less authoritative and more facilitative, suggesting that the building of school communities is central in what principals do.

### *Political Leader*

Other research focuses the role of the principal in public relations. Bolman and Deal (2003) suggest that principals must recognize and identify the political dynamics of any initiative. They state that “[principals] must recognize and understand political



realities [;] they know how to fashion an agenda, map a terrain, create a network of support, and negotiate with both allies and adversaries” (p. 132). Bolman and Deal suggest that because of increased demands of accountability, leaders must account for political pressures to improve test scores and to demonstrate an increase in student achievement to the public. Duke et al. (2008) found that instructional policies in education have become increasingly standardized as a result of state and federal accountability initiatives. They suggest that the need for governments to report improved results on standardized tests and improved achievement benchmarks has limited the principal’s discretionary decision-making abilities and added pressure on principals to meet standards.

The literature suggests that principals are asked to be instructional and transformational leaders and those principals often spend more of their time dealing with developing human relationships and responding to the needs of teachers and students. Yet, increased demands in accountability through the 1990s and 2000s suggest that the role of the principal has become even more complex as principals are asked to be agents of change, team builders, and public relations agents. Current educational practices include the responsibility of the principal to create communities of learning and collaboration. As much of the research suggests, principals are asked to do more in developing change and growth in their schools. They are asked to be instructional leaders who can transform policy into practice. As well, the research suggests that the principal is charged with the responsibility to build capacity around teamwork and collaborative decision making. It is clear that the role of the principal is changing and increasingly complex.

### The Additional Demands of Data-Driven Decision Making

The role of the principal has become even more complex when viewed within the context of data-driven decision making. According to Earl and Katz (2006), “educators should shift their views and think about using data as an essential part of their work” (p. 1). Their research on leading schools in a data-rich world suggests that the modern school leader is one who can collect, interpret, and disseminate data sources on which to base decisions. They found that traditional school leaders “relied on their tacit knowledge to formulate and execute plans” (p. 2), whereas data-focused leaders found ways to “transform data into information, then into knowledge, and ultimately into constructive action” (p. 3). Earl and Katz (2006) argue that school principals today live and work in a data-rich world. They argue that it has become the responsibility of the principal to support and make use of the data sources available to them, including standardized test scores. They suggest that the role of the principal includes the added responsibility to transform data into useable knowledge.

Hargreaves and Fink (2006) draw from their case study research on longitudinal change to argue that what principals “do in one school necessarily affects the fortunes of students and teachers in other schools around them; their actions reverberate throughout the system like ripples in a pond” (p. 16). They suggest that increased accountability measures, and test score reporting, have caused schools to function on the “market principles of competition and choice” (p. 16). Hargreaves and Fink (2006) argue that principals must be systems thinkers who are able to guide schools toward sustainable education. The problem created is that principals may confuse student engagement with school reputation and test-score results. Principals have to be careful not to fall into the

“fatal attraction” trap, retaining students, or marginalizing students, in order to raise test scores (p. 17). Principals can no longer be concerned with just their own school, but rather with the larger school system to ensure both students and staff are given equal opportunity. Their research suggests that there are several additional responsibilities of the principal in data-driven environments including the responsibility to use data to make informed decisions while considering the effects of competition that may result from a data-driven focus.

Hargreaves and Fink (2006) identify a central problem for principals: How are test scores used to identify areas of improvement but at the same time promote social justice and student engagement? They challenge us to ask: Do standardized tests simply point to the inequities in our communities, demonstrating what we already know, disparities between rural and urban schools, affluent and impoverished, and private and public schools? They suggest that data-driven decision making has added to the complexity of the role of the principal as principals not only have to respond to test-score data, but to ensure it is used in a just and socially engaged manner.

The role of the principal has become even more complex and fragmented with the inclusion of standardized test scores and data-driven cultures of accountability (Volante, 2007). The actual work life of the principal may then look very different from the traditional role of the principal as a moral or instructional leader. Many educators continue to question the validity of standardized testing even though EQAO is well-rooted in the Ontario education system.

Volante (2007) outlines several limitations of EQAO testing on schools, students, teachers, and principals found in his review of EQAO implementation and policy in

Ontario. Volante states that the ultimate objective of external, large-scale assessment should shift “notions of accountability from the realm of simple number crunching to a comprehensive view focused on authentic system improvement” (p. 2). Volante suggests that test scores should be one indicator of improvement but should not be used as the sole method of measurement. He argues that because of the stakes connected to the assessment of grade 10 literacy skills, which is a graduation requirement, schools are faced with increased political pressures, and test scores continue to be central to the added pressures of school principals. Volante states that “it seems imperative that the use of test results be well scrutinized and the reasons for testing and communication strategies incorporate the limitations of the results being reported” (p. 10). In other words, principals cannot simply be consumers of data; they must have critical analysis skills. He suggests that principals “have a responsibility to become assessment literate” (p. 10) adding to the role responsibility of the principal.

Over the last several years, mainly because of the American *No Child Left Behind* legislation (2001), there have been a number of studies that focus on standardized tests and accountability reform. Most research is critical of the effectiveness of standardized testing to increase student achievement, and many studies look at the politics and impact of stress as a result of testing on both teachers and students (King, 2002; Kohn, 2000). Wang, Beckett, and Brown (2006) summarized the controversies of standardized testing in school accountability as identified in the literature. They suggest that principals and teachers view standardized tests as politically imposed and not reflective of whole student learning. They report that although some teachers believe that testing can help determine benchmarks of growth, most educators feel that the high-stakes nature of standardized

test forces them to teach *to* the test rather than teach *from* the test. They found that many principals are concerned about the increased pressure on teachers to perform. Their research suggests that principals have the added responsibility to guide and support teachers through the use of standardized tests and data analysis.

In their case study on school reputation and teacher retention, Roellke and Rice (2008) found that standardized test results do affect school principals in terms of teacher assessment and retention. Their findings state that the reputation of a school is often determined by the success or failure rates of standardized tests. The findings suggest that school administrators at low performing schools “argued that their schools face acute challenges attracting teachers because of the need to increase performance on statewide tests” (p. 276). They state that principals, then, must find ways to create an environment where teachers want to come and stay regardless of test scores. Their research suggests that principals face additional pressures when responding to test-score data, and that the role of the principal must include the critical use of data to attract and support teacher development.

In their research on the role of the principal in developing successful reading programs, Mackey et al. (2006) found through a comparison of interview responses and school achievement data, that the principal’s own background and knowledge of standardized tests affects the use of test scores in a school. Likewise, Perreault (2000) suggests that the positive use of standardized test data depends on the pressures and feelings of the principals. He found that principals at low-achieving schools describe their role as offering instructional advice, while principals of high-achieving schools felt their role was to “reinforce teacher attempts at enrichment and relief from the focus on

tests if scores remain high” (p. 5). Both studies found that there is, indeed, a relationship between standardized test scores, principals’ role, and the added pressures of accountability.

Goodwin et al. (2003) surveyed 375 principals to ask their opinions and perspectives on how their role has changed and why principals perceive there to be a potential shortage of new principals. They identified several contributing factors: lack of time, increased stress, increased responsibility, and decreased autonomy. They suggest that there is a “disconnect between what [principals] perceived as important and what are the daily demands of the job” (p. 29). Although principals deemed accountability to be their most important responsibility to meet higher standards, they spent more time with “more serious student needs” (p. 30) such as drug addition, crime, and special education. Overall, the results suggest principals felt their role has increased in complexity and that there is a “substantial conflict in the principal’s perceptions of the requirements of their position” (p. 27). Therefore, their research demonstrates that principals identified an increase in demands of their role because of testing and accountability, but that there remains a continuing need to direct attention on student needs.

Principals’ perceptions of the increased demands of their role, because of increased data for accountability, were also examined by Leithwood and Jantzi (2008). Ninety-six principals completed a survey asking principals about their perceived self-efficacy in relation to student achievement and standardized test scores. They found that principals’ belief in their own ability can have positive benefits on working relationships in schools. They found that principals value the need for additional training, and that there is a need for collective efficacy (p. 497) with respect to standardized student

achievement assessment. Their research suggests that principals perceive there to be additional pressures to respond to, and use data sources, and this additional pressure has added to their need to become assessment literate.

Marks and Nance (2007) also examined principal influence on instruction and supervision in contexts of accountability under systemic reform. Through school observations and a survey of principals' perceptions, their findings suggest that educational reform movements, at the state and district levels, have increasingly tightened principals' control of instruction and supervision (p. 4). They state, however, that "because schooling is typically decentralized throughout school districts, policy environments contain a multiplicity of actors whose interpretation of state policies and views on implementing them may be in conflict" (p. 4). They suggest that the lack of policy coherence creates a dilemma which may reduce the influence of the principal as "local policy actors may advance other agendas that could deflect principals' ability to exercise influence in the ways they best see fit" (p. 4). They found that principals are highly influenced in their decision making by state control and external policy, and that accountability contexts affect principals differently depending on their perception of their ability to influence the decisions. Interestingly, principals suggested that they have the most influence over instructional policy and, therefore, responded more positively to implementing instructional policy. In contrast, principals regarded that externally controlled policies have reduced their ability to influence supervisory [managerial] decisions (p. 23).

Similar to Goodwin, Cunningham, and Childress (2003) and Leithwood and Jantzi (2008), Marks and Nance (2007) found that principals encounter a role conflict

when attempting to align external policy influence with local school needs and decision making. All studies suggest that principals perceive that they have the most influence over instruction and respond most positively when accountability contexts are aligned with instruction.

The concept of policy influence and networks of power bases in accountability contexts was also examined by Moore and Kelly (2009). They found, through a review of literature on authority and power, that the base of power in schools must shift from policy influence or control to policy legitimacy or credibility (p. 392). It is the role of the principal to create a network of empowerment through teacher collaboration as opposed to a negative perception of control over a group. They argue for a shared leadership model in schools that resists a hierarchical structure and distributes the influence of the principal and accountability policy amongst the entire school staff.

Similarly, Goddard (2003) and Gronn (2003) both argue for a distributive model of leadership in schools. Goddard suggests that it is the role of the principal to “give purpose and meaning to the policies which she or he is duty-bound to implement” (p. 13). He argues that this can be achieved when principals “conceptualize ways of leading a community of others in attempt to help achieve the collective goals” (p.13). Following a constructivist leadership framework where “leadership is not learned but, rather, is made by leader and followers working together” (p. 19), Goddard suggests that it is the role of the principal to reclaim the importance of community “where individuality is preserved, but not at the cost of cohesiveness and community” (p. 23). Gronn extends the argument for distributed leadership suggesting that principals are responsible to “consolidate teachers’ leadership disengagement” (p. 71) that is common in standard-based designs for



schools. The literature suggests that distributive leadership models move beyond the rejection of a traditional leader-follower dualism to a view that “leadership might be exercised by many different people at different times, and in relation to different issues, depending on the circumstances and the demands of each occasion” (Bennett & Anderson, 2003, p. 3).

Morley and Hosking (2003) add to the concept of distributive and shared leadership. Using a social constructivist position, they argue that “the relationship between people and their context is one of mutual creation, and that both contexts and persons are created, maintained and changed through conversation, most of which can be described as negotiation” (p. 43). They suggest that it is the principals’ role to develop dynamic relationships in order to create and sustain change. This requires schools and principals to shift the base of power and authority from traditional structures to a community of shared practice. In other words, the responsibility for school improvement is shared amongst all staff as the power base, and channels of communication, look more horizontal than vertical. They state that “leadership is concerned with enabling this communication and negotiation to take place, and ensuring that it is sufficiently located in the existing context to be creative and constructive” (p. 44). It is the role of the principal to negotiate between external, political agendas, board and district goals, and teacher and school community contexts in order to positively affect change.

## CHAPTER THREE: METHODOLOGY AND METHODS

The purpose of this research was to study the perceptions and perspectives of Ontario secondary principals in data-driven cultures, and how they perceive the demand for data-driven environments has changed their role. To obtain principal perspectives, this study followed a generic qualitative methodology, informed by the methods of grounded theory. This chapter outlines why a qualitative methodology was selected, and what procedures were followed to collect and analyze the data. It outlines the methods followed for participant selection, and for collecting data through personal interviews. As well, it describes how the data were analyzed, what steps were taken to ensure the findings were credible and useful, and the limitations to the methodology used. The measures taken to ensure that ethical research practices were followed are also included in this chapter.

### Generic Qualitative Research

A generic qualitative approach was used to solicit the voices, experiences, and perspectives of high school principals who currently work in data-driven environments. Creswell (2008) states that qualitative studies “ask general, open-ended questions and collect data in places where people live and work” (p. 51). He suggests that qualitative methods can be used to inquire into a central phenomenon that cannot be evaluated by using traditional experimental research designs. Although the context for this study is data-driven decision making, this research is centrally concerned with the perspectives and perceptions of secondary school principals. Therefore, a generic qualitative research design was employed. According to Caelli, Ray, and Mill (2003), generic qualitative studies aim to “discover and understand a phenomenon or the perspectives of the people

involved [in the study]" (p. 3). They further suggest that qualitative research is rooted in a constructivist philosophy that accepts that humans construct knowledge through their experiences. Since this research was interested in principals' perspectives and principals' experiences, a qualitative methodology appeared to be appropriate.

Although generic qualitative studies are common in educational research, a formal and consistent framework cannot be applied to all studies. Thorne, Kirkham, and MacDonald-Emes (1997) argue that qualitative research is "highly interpretive" (p. 169), suggesting qualitative researchers should use existing knowledge to inform their interpretation of themes. They suggest a "non-categorical qualitative alternative" (p. 170), where data analysis is interpreted rather than described by categories. Sandelowski (2000) argues, however, that qualitative research is less interpretive and more a "straight descriptive summary of data" (p. 247). Both agree that a generic qualitative study has a flexible framework, suggesting that the central phenomenon being studied is in a constant state of change. In order to both describe and understand the principals' perspectives, this study follows more closely with a descriptive framework for data analysis. The data collected through interviews were initially described according to categories of role conflicts encountered as identified through the theoretical framework (Goodwin et. al., 2003).

To help inform this research, methods from grounded theory were used to guide the data collection and analysis. Creswell (2008) suggests that grounded theory is concerned with discovering theories based on actual field practice. Creswell (2008) outlines the systematic design first created by Glaser and Struass that includes a process of open coding of interview responses based on an identification of categories. This

study borrowed from the systemic grounded theory design the method of identifying three categories that developed from the theoretical framework: change conflicts, role responsibilities conflicts, and role accountability conflicts. These initial categories were used for the initial coding of interview responses as discussed in the data analysis section of this chapter.

### Participant Selection

This study used a purposeful sampling of participants. Purposeful sampling allows the researcher to select participants based on their experiences, and requires a small number of participants since interviews aim to be detailed and in-depth. As noted by Creswell (2008), the goal of purposeful sampling is “not to generalize to a population, but to develop an in-depth exploration of a central phenomenon” (p. 213). Thus, the intent of this study was not to solicit responses from a large number of principals, but rather to focus on the lived experiences and perspectives of a select sample.

The participant selection criteria required participants to have held the position of secondary school principal for no less than 7 years at the time of this study. One participant held the role of vice-principal for 2 years and principal for the remaining 5 years. This timeframe was used to ensure that participants had experienced the implementation of EQAO literacy testing for grade 10 students, and had had experience as a school administrator prior to the secondary school reform (1996) in Ontario. As well, the selection criteria included participants who had had experience working with EQAO data in their annual school improvement planning process.

Once permission to conduct research was obtained from the school board’s research and ethics review committee, the superintendent of schools was contacted via

email to help identify principals who matched the selection criteria. Once identified, 5 principals were contacted through email, and invited to participate in this study. Each participant was sent a letter of invitation that outlined the process of the interviews, the data collection, and the data analysis.

Although 5 secondary school principals originally agreed to participate in this study, 1 principal removed herself from the study as she could not meet the time requirements. The remaining 4 principals all had held the role of principal prior to 2001. This timeframe has been selected because the Ontario grade 10 literacy test was first implemented that year. The literacy test is a high-stakes, standardized test, and successful achievement on the test is required of all Ontario students in order to graduate.

All 4 secondary school principals worked for the same school board, a large urban and rural board that is subdivided into four geographical areas. Each principal was situated in one of the four geographical areas covered by the board. This was done intentionally to ensure that the principals selected worked at schools that represent the diversity of the board. Because the vision statement of the board places EQAO test data at the center of its school improvement plans, it was selected as a data-driven environment.

### Interviews

Interviews were used as the primary means of data collection as supported by qualitative and grounded theory research designs. Kvale (1996) describes the research interview process as a conversation. He states that the purpose of a research interview is “to obtain descriptions of the life world of the interviewee with respect to interpreting the meaning of the described phenomena” (p. 5). In order to gain descriptions, Kvale

suggests that the researcher is in conversation with the participant and that the purpose is “not to [find] objective data to be quantified, but rather [to find] meaningful relations to be interpreted” (p. 11). Although Kvale would suggest the use of an open conversation as a method for interviews, in order to keep interviews focused on the initial categories of role conflicts described in the theoretical framework for this study, this study used semistructured interview questions.

Creswell (2008) argues for the use of semistructured interview questions. He suggests, unlike Kvale (1996), that creating interview questions based on the identification of initial categories can help guide the conversation. However, interview questions must remain open-ended to allow for open-ended responses. This research used semistructured interview questions that allowed for an open-ended response from participants.

As this research conceptualized schools as data-driven environments, and the principal as the central agent of change, the central research question was, therefore: How do secondary school principals, with over 7 years of experience, perceive that their role has changed in response to the increased demands of data-driven school environments. Semistructured, open-ended, interview questions were framed around how principals perceive their approach to instructional leadership had changed (role change), how they perceive they lead and manage differently (role responsibilities), and how they understand and demonstrate accountability differently. The focus on these three ideas was drawn from the research completed by Goodwin et al. (2003) on understanding principals' role conflicts and accountability conflicts. Each participant interviewed was asked:

1. How has your role as principal changed from prior to the inclusion of EQAO to the present?
2. What tasks have come to the forefront of your experience as a result of EQAO and data-driven initiatives?
3. How has data collection and analysis broadened your understanding of accountability to the school community?

The interview questions were presented as a guided conversation and, therefore, some probing questions were used to clarify examples and perspectives, for example: Have these tasks influenced your role, and how do these tasks influence your relationships with teachers?

There are many benefits to collecting data in the form of interview responses. First, Creswell (2008) suggests that the perspectives and perceptions of principals cannot be assessed through observation or documentation. As this research was concerned with the perspectives of principals, one-on-one interviews allowed the participants to share their experiences and to voice perceptions. Although a survey model may uncover perspectives of principals, an interview allowed the researcher to frame questions and record details of the principals' perceptions.

The researcher, however, must be aware of his or her own research bias and should be careful not to lead the participants in any one direction. As Creswell (2008) states, personal interviews may solicit a filtered response from the participants. Participants may be concerned for the words they use, or ideas they share, especially if the participant's response is incongruent with the vision and goals of the organization, or if participants fear repercussions from their supervisor. For the purpose of this study,

participants were informed that their responses would not be evaluated or shared for evaluative purposes, that their names and location of work would not be identified, and that participants were free to discontinue the interview at anytime. This was done not only for ethical reasons, but to ensure that participants were not hesitant to speak and share ideas comfortably.

### Reflexive Journal

A reflexive journal was also used as an organizational tool for data collection and reflection. The reflexive journal was used by the researcher to detail the process and progress of the interviews, ideas, and additional categories that emerged from the interviews. It was used to record any insights that may have helped the researcher gain knowledge from the experiences of self and others; for example, the tone of the responses was recorded in the journal. Jasper (2005) identifies the reflexive journal as a key instrument for data collection and analysis in qualitative studies. She suggests that research journals allow the researcher to “make connections arising from experiences in the field and to trace the development of concepts, categories and themes [that are uncovered through the research process], and to transform this knowledge into a descriptive whole or theoretical structure” (pp. 252-253). Jasper suggests that valuable knowledge about the lived experiences can be gained through written reflection and connection making. Similarly, Scanlon, Care, & Udod (2002) argue that reflection enables researchers to tap into knowledge gained through lived experiences. They suggest that it is through the process of reflection that researchers gain an understanding of the meaning of the experience. In this research, the research journal was used to construct knowledge about the lived experiences of the participants by recording how



their tasks have changed over time. Both Jasper and Scanlon et al. support the idea that reflexivity is a supplement to primary data as outlined by Schon's (1983) theory of reflection-on-action that suggests that knowledge is gained by understanding the lived experiences of people.

This study used a reflexive journal to track the initial reactions of participants to the study and research questions. A reflection was written after each interview that recorded ideas about the participants' tone and diction of responses, to begin to understand the participants' values, attitudes, and opinions. The journal was used as a secondary source of data collection to support the researcher's reflection on the data collection and analysis process.

#### Data Collection

Primary data were collected from one-on-one interviews. An initial pilot interview was completed by an experienced principal prior to interviewing participants. Feedback from the pilot interview suggested that interview questions need to first focus on allowing participants to reflect on EQAO testing itself, and then broadened to allow participants to share their experiences working with data, school improvement plans, and change. The semistructured interview questions were revised according to the feedback. One question regarding other data sources was removed, and two other questions regarding role tasks were merged.

An interview guide outlining the three semistructured interview questions was then created and distributed to the 4 research participants in advance of their one-on-one interview. The interview guide informed participants that the interview process would follow a semistructured conversation and, therefore, some probing questions may be

included. As outlined by Creswell (2008), the participants received the interview guide in advance of their interview so that they could begin the process of reflection and to gain a more in-depth response.

Upon approval and consent of the participants through a signed consent form, 4 secondary school principals were interviewed at a location of their choice. 2 participants were interviewed in their school, after school hours, and two participants were interviewed at the school board in small, public meeting rooms. Interviews lasted approximately 45-60 minutes and occurred at the end of June and early July, 2009. Interviews were digitally voice recorded by the researcher, and all interview responses were kept confidential. Data were stored and secured by the researcher in a locked cabinet and digital files were protected by password. The researcher also kept the reflexive journal confidential. Although reflections were noted in the interview journal, the interview guide and questions remained the same for all participants.

Interview responses were transcribed by the researcher and returned to the participants for verification and corrections. None of the participants returned their transcripts and no additional information was added or corrected after the interview process; therefore, a second follow-up interview was not conducted.

### Data Analysis

Data analysis followed a qualitative process for data analysis as outlined by Creswell (2008). Data analysis began with the constant listening, reading, and rereading of interview responses and interview transcripts. This analysis consisted of developing a general sense of the data, and then the organization of the responses into the initial

categories of role change, role responsibilities, and role accountability as framed by the theoretical framework (Goodwin et al., 2003).

Phase two involved the identification and creation of coding of responses. Following Creswell's (2008) process of coding data, coding involved the labeling of textual responses to form descriptions and broad categories in the data. Codes were recorded along the margins of the transcripts and identified through the constant comparison of responses. Textual segments were highlighted and aligned with the codes recorded in the margins. Each code word or phrase described the meaning of the text segment. The code words were supported by the reflections in the reflexive journal. Codes included: tasks, values, community, student success, teacher perceptions, time, actions, challenges, and obstacles.

Phase three included the reduction and combination of codes through the creation of a code frequency chart (see Appendix A). Each code was counted according to the number of times each participant referred to each code in their responses. The codes that reoccurred most often were identified: change, tasks and responsibilities, and accountability. These codes were used to identify reoccurring patterns and initial themes.

A comparison chart was then created, as phase four, to identify the commonalities between textual segments from each code. This comparison of text segments was used for the identification and creation of themes. For example, text segments that were coded as change from participant one were aligned with similar text segments from participant two, three, and four. Once text segments were compared for each code, themes emerged according to the words used most frequently and the tasks cited most commonly. The texts segments coded change, for example, included reoccurring words such as manager,

control, and fear. The tasks included organization of EQAO, test-score reporting, and the creation of school improvement plans. These words and tasks helped form the theme of principals as managers of data. The themes and the analysis of the themes are presented in Chapter Four.

#### Limitations of the Method

Qualitative research affords the ability to consider data that is specific to the problem context. This research is confined to the perspectives of principals working in data-driven environments and does not attempt to generalize the results in other contexts. Data were limited to the lived experiences of the 4 participants and did not assume their experiences were the same as other principals outside of the study. Some demographic information is presented in Chapter Four that helps to identify the scope of the participants' experiences and background context. No attempt was made to compare principals from other school board districts or from the elementary panel. Because of the small size of the sample, the focus of data analysis was on understanding the perspectives of the 4 principals; no attempt was made to generalize the responses to a larger population.

#### Ethical Considerations

This research followed the guidelines for ethical research as required by the Brock Research Ethics Board (REB). Research did not begin until it was approved by the REB and by the research ethics committee (see Appendix B) of the participating school board, and the participants agreed to participate through a signed letter of invitation that outlined the time commitments and requirements for the study. Participants signed an informed consent form before any interviews occurred. The consent form included the voluntary

participation of participants, and advised participants of their right to withdraw from the study at anytime. Participants were informed of the confidential nature of the data and were assured on the consent form that their names and schools would not be identified. For the purpose of data reporting, pseudonyms (Principal 1, Principal 2, Principal 3, and Principal 4) were used to help ensure anonymity.

All data were kept in a safe location, and information was only shared with the research advisor. Interviews were transcribed by the researcher and, therefore, no outside transcriber was used. Participants were informed that ethical concerns could be directed to the REB, citing file code number 08-315.

## CHAPTER FOUR: PRESENTATION OF FINDINGS

This study set out to examine how Ontario secondary school principals perceive their role has changed as a result of the increased demands for data-driven decision making. The move to collect standardized test data was introduced into Ontario schools following the establishment of the Educational Quality and Accountability Office (EQAO) in 1995. The central research question for this study was: How do secondary school principals, with over 7 years experience, perceive that their role has changed in response to these increased demands for school accountability? Questions centred around how principals understand and demonstrate accountability differently, how they approach instructional leadership differently, how they lead and manage schools differently, and how they perceive their work environment has changed as a result of the focus on data. A generic qualitative study was selected to guide this research to understand the perceptions of secondary school principals working in data-driven environments and to describe how they perceive their role has changed.

This chapter presents the data and findings of the study. It summarizes the data collected from the interviews, and presents an analysis of the data developed through a constant comparison of codes and categories developed from the responses. It answers the central research questions for this study by presenting textual segments, themes, and findings.

### Sample and Participant Demographics

Five secondary school principals were invited to participate in this study. One principal withdrew at the beginning of the study because she could not meet the time

commitments required. Therefore, the responses from 4 secondary school principals have been included in this data.

All 4 principals had over 7 years experience as an administrator at the time of data collection. Each principal had served as an administrator at two or more schools in the board. Three of the principals were male, and 1 was female. All 4 principals held a graduate degree and all were members of the Ontario College of Teachers. All 4 principals were interviewed at their school or school board office. Interviews occurred during the months of June and July, 2009.

### Themes

The participants' words and phrases were the central source of data for this study. Textual segments extracted from the interview transcripts provided the evidence for data analysis and thematic comparisons. For the purpose of reporting, the textual segments are presented below in quotations. Textual segments have been embedded into the body of this text to mimic the flow and conversation of the interviews.

The following themes evolved from the data through the constant comparison of responses and codes: (a) perceptual shifts about data, (b) using data to shift the perceptions of the school, (c) using data as a focus for teacher collaboration, (d) using data for instructional leadership, and (e) changing perceptions of accountability.

The principals first recognized a shift in their own thinking about EQAO and data as evaluative and competitive, to a more positive perspective of the use and value of data in school improvement plans and student learning. Because of their shift in thinking, they noted that their role as principal had expanded to include the responsibility to persuade teachers, parents and students into a similar shift in thinking toward data. They suggested

that this change in role was influenced by the need to represent the positive successes of their school, and by the community demographics in which they work. In short, the themes and evidence suggest that these principals had shifted their own thinking about data and perceived that standardized test data can provide useful information for schools. Therefore, their role expanded as a result of the additional data available to them.

### *Perceptual Shifts about Data*

When asked if their role had changed, all participants immediately responded “yes.” Even before the interview began, all participants commented on how working with data had caused them to shift their thinking and to change their role as principal. They noted that this study was timely because they were continually presented with an increasing amount of data sources to manage. Principal 1 observed that when he was first appointed to his current school, he created a school profile by looking at several sources of data. He stated, “I started with gathering data about what percentage of students were graduating, what percentage of students were succeeding at each grade level, and what the failure rate looked like.” He continued to state that he looked at attendance records, the number of late students to school, the number of students taking applied level courses and the results of the EQAO testing for math at the grade 9 level, and literacy at the grade 10 level. He indicated that since the induction of EQAO, he had broadened and expanded his use of data and now identifies data as a “valuable source of knowledge for developing school improvement plans.” He stated that his thinking about data

changed dramatically in that EQAO has raised my alertness to how the school is doing. I always believed that students in this school can succeed but the data did not reflect that. I began to think that what I need to do now is understand what is



going on. The data told me something was going on, now it was my job to find out what.

Principal 1 continued to state that his thinking included asking “what are the characteristics of these students and how do you hook these students into the same curriculum by perhaps changing our teaching strategies?” Likewise, Principal 4 noted that he has changed his thinking about EQAO test scores from a reflection of how the school has been doing to a reflection on how the school “will be doing.” He stated that he “really tried to look at instruction, what is being done in the classroom. Teachers need to look at where students are having problems and work together to find solutions.” He suggested that his thinking changed from asking “what curriculum is being covered, to what strategies are being used.”

Similarly, Principal 2 stated,

I think EQAO has caused school boards and principals to take an interest in data and the analysis of data. I think it has proved to be valuable as it has served as a catalyst for more information, more detailed information, on students and their academic successes.

All participants noted that their school board now keeps a database of student data that includes demographic data, achievement data, attendance data and EQAO data. All participants viewed data collection and analysis as a relevant part of their work and role.

All 4 principals also indicated that their responsibility to manage data had shifted over the last 7 years. Principal 3 suggested that during that time her experience with data and EQAO changed significantly. She stated that when EQAO testing first reached the secondary panel, she saw her role simply as administrative. She stated: “I was just trying

to figure it out; the process of just administering EQAO was so tedious 7 years ago...it was a process of 3 weeks of getting it ready.” However, she continued to state how this has changed. She is no longer consumed with the management of the test, but now focuses on how the school and teachers can use the data from EQAO to create improvement plans for the school. She suggested that there was a shift away from management, to using data for reflection. For example, she stated that,

going back 7 years ago, I thought EQAO simply fell into the hands of the English teachers. I thought it was their job to see that students were prepared for EQAO. I was unsure as to my role so I simply focused on the paperwork of getting the test ready. At first I believed that I had little control over EQAO preparation, but now see how I must get all teachers to look at literacy across all curriculum areas. It is not just the English teachers but all teachers who must take ownership for improved literacy instruction.

Similarly, Principal 4 stated,

we are in an age where we [teachers] need to reflect on our own practices and we need to be included in the entire puzzle...we need to know what is it that is not creating the greatest amount of success for our [school] community. Now data is one of the ways that we can begin to address some of those questions.

All 4 principals agreed that the inclusion of EQAO in schools has shifted their role away from simply managing the data available to them, to leading teachers, parents, and students through a process of reflecting on data to improve classroom instruction.

All participants commented on how their perceptions and knowledge of data collection and analysis has shifted from 7 years ago when EQAO was first administered

in secondary schools. Principal 3 stated that when EQAO results were first published, “it was scary for principals because they thought that these numbers were going to say something about the way they administered...they thought it was going to be an evaluation.” She suggested that all educators felt the pressure of this new high-stakes testing, yet over the years this has become less of a concern. Likewise, Principal 2 stated, “what I first saw happening was teachers were worried about the test and in essence [that it would] be used as an evaluative tool of their teaching.” He continued to state, “I experienced my own child’s reaction when she complained that her teacher was not fun because all they were doing was preparing for EQAO.” However, all 4 principals suggested that this, too, has changed. Principal 4 suggested that it is the role of the principal to,

present data in a way where you overcome the sense in the teacher that you are pointing the finger at them. It is not about pointing the finger; it is about using data objectively to help us all reflect on our teaching practices, our curriculum, on the types of learners that are coming into our classrooms.

Principal 3 also described a movement away from EQAO as an evaluative tool, to EQAO as a prompt for discussion and improved instruction:

the initiative that we are now taking, to take the pressure off students and teachers, is to make it [literacy development] just a typical thing...whether it is in geography or science, we are trying to shape our assignments so that kids are not surprised by it.

All principals agreed that there has been a shift in their thinking suggesting that tests are driving the teaching of curriculum. For example, Principal 3 stated:

it's more about a shift. I would never just throw data at you, that does not make sense to me. I will, however, throw a kid at you and now say, look this kid is not doing well, what can we do to help this kid? I think EQAO has helped me ask the right questions, to show teachers that testing can drive what you do in your classroom.

Similarly, Principal 4 stated:

I see that EQAO is here to stay and driving much of what we do in schools. I perceive my role as leading teachers through the use of data, and shifting or influencing how teachers themselves perceive testing and data. What remains a challenge is to have teachers, students, and parents also see this shift from EQAO and data as evaluative to EQAO and data as one tool used to prompt further student success.

As well, all participants commented on how they perceive EQAO has caused a change in how teachers, students, parents, and communities view the reputation and perception of the school. Principal 4 stated that "because the results are public and because parents can then look at the rankings and how schools scored, there is no question that there are going to be comparisons that are made of schools in terms of where our school finished." He went on to say that "if you are on the low end of EQAO, then it certainly exerts a certain amount of pressure on the principal to address in what ways you are going to improve it." Similarly, Principal 3 stated, "we do have some students switching schools because our number is higher...so there is some school shopping going on." Likewise, Principal 1 stated, "I needed to show our community that we were a very different place than the perceptions they had about the school [because of

our low test scores].” This suggests that because of their shift in thinking, their role has changed to include using data to market or promote their school, and, therefore, to shift the perspectives of parents, teachers, and students.

The principals also noted how their shift in thinking toward EQAO was also prompted by their change in role as they were removed from the teachers’ union as part of the secondary school reform. Principal 2 stated that,

before I was able to hand pick the teachers for the school and tried to hire teachers that had some knowledge of examining data – which at the time was impacted very little by the union. Now, I am no longer part of the teachers’ union and have very little control over hiring.

Similarly, Principal 4 stated,

I felt a loss of control over instructional matters as we were being told that we are now administrators and not teachers. I felt a divide between teachers and principals because of our separation from the union. I think the principals believed that the union did not want principals to be involved in the everyday teaching, I was told to stay out of test scores.

Principal 3 noted that she

felt isolated because I did not think teachers wanted to listen to my concerns; I felt that teachers viewed me as a manager and not someone who has knowledge about testing and teaching. The only thing I could do to combat this was to put my money where my mouth was. So whatever goal the teachers came up with, the budget represented that goal.

She continued to state that “the staff was very nervous because they were never asked before to decide what to do with money to help their instruction of literacy. I think this was the first step in rebuilding the bridge between me and my staff.” Similarly, Principal 1 stated that in order to have

teachers view me as still part of the team, I moved into an area of looking at larger groups of students, not for reporting purposes, but to see how we are all going to help our students. It’s hard to make data neutral, it is always telling you something. So the question had to be, how do I make it transparent so everyone feels good about what they are doing and not making them feel that I was pointing a finger at them?

Principal 2 indicated that once he began to understand his new position as an, administrator who can influence instruction, I no longer perceived there to be extreme pressure to secure positive test score results, or a fear that low test scores would be a reflection of me as a leader. Instead, I saw my role as part of the process of improvement and not as the gatekeeper of final results.

The principals stated that there is limited pressure from supervisory officers, parents, and teachers to reach a certain achievement level on EQAO testing. What became more important was to demonstrate that there is an improvement plan in place, and to convince others that data can be used positively to support student improvement.

#### *Using Data to Shift Perceptions of the School*

As a result of these changes in perceptions toward data and EQAO, all participants agreed that their role responsibilities and tasks as principal have shifted as

well. Principals indicated that they now actively use data to shift the perceptions of parents, teachers, and students about their schools.

Principals conceptualized their role as using data to highlight the success of their schools, and to shift the school community's views and options of their school through the use of data. They describe their role as sharing valuable information gained from data sources to defend, promote, or convince parents and students that their school is, indeed, a valuable place to attend. They suggested this role emerged from the comparisons of schools being made through the public rankings of schools. As Principal 4 stated, "what I have found is that the low test scores and the rankings also perpetuate a whole series of other myths about our school." He suggested that some parents and teachers form a negative perception toward the school culture simply because student test scores may be lower than other schools. For example, he stated that some people believe if "your scores are low, they are low because you've got gangs, you got drugs, you got a high ESL or special education population...and I don't want my child going to that type of school." All 4 principals agreed that it is often a challenge to get parents and teachers to see the larger picture and change their perceptions toward the data presented from EQAO and their view of the school community. Principal 4 stated,

I want to portray our school community in the most positive light possible, and when working with data that does not reflect high scores, you have to convince your parent community that just because we have low scores it is not a bad school and your student can succeed in that school.

He suggested that this is a necessary role for all principals, not simply because there are school comparisons being made, but because principals want to be able to demonstrate

the positive success of their school and promote the importance of student success in all areas of school life not just test scores.

Similarly, Principal 1 stated that when parents and teachers first saw data results, everyone could see what they were saying...we have a high failure rate. Yet, I would not accept the notion that our students are demographically not going to do well, or that they are less bright than other students or schools, but to convince teachers and parents of that, I had to go to the data.

He suggested that data can help shift the perceptions of teachers and parents when presented as a tool to guide improvement. He stated, "I want them to see the larger trend, and any success we had, I brought it to their attention." Likewise, Principal 4 stated,

over a period of time of delivering those positive messages at every public opportunity I had, parents started to see that their kids are being successful. So what you do is take that data that shows positive results and always put it at the forefront of your presentation.

Therefore, the principals perceived that in order to educate parents and defend the culture of their schools, data should be presented to deliver a positive message.

Principal 1 commented that it has become the role of the principal to represent data in a positive light in order to defend or promote his school culture;

I can counter all of that now with fact and it becomes a very different story when you present data because if you are going to say it is not a good school, you can't say that the data shows that. That is really how I use data.

The defense of school culture and school integrity was reflected in the many tasks the principals identified when working with data. All principals indicated that the



presentation of data to the school community was a vital task in promoting student success in their schools.

The principals agreed that their shift in perspective toward using data has caused a change in role, they described themselves as leaders who present data, analyze data, and persuade their audiences to find the positive results in the data. They described how they use data to convince or demonstrate to teachers and parents that there is a plan in place to meet the needs of students and provide opportunities for them to be successful.

The principals also agreed that their new role as a leader of data was influenced by the demographics of the school community and the results of EQAO testing. For example, if a school has high test score data, the need to promote or defend the school is less of a concern. As Principal 2 stated, "I was at a school where the results were in the top 10 in the province...it was not because I was over-zealous in selling it...sometimes it is just the community." Similarly, Principal 3 suggested that when test scores went up at her school, fewer parents were concerned with what was happening: "The parents like to know the number, I tell them and that is the end of the discussion." Both Principal 2 and Principal 3 suggested that they spend less time defending and promoting their schools because their test scores are high. Therefore, the findings suggest that the collection and dissemination of student test data is now used by school principals as a way to promote their schools.

#### *Using Data as a Focus for Teacher Collaboration*

The most predominant shift in role responsibility identified by the principals was the movement away from focusing on data results to focusing on building positive, collaborative learning teams of teachers to work with data to improve instruction. The

principals suggested that their role is to shift teachers' perceptions by creating collaborative time and structures for teachers to work together with data. They described themselves as leaders of people.

All 4 principals described the importance of getting their teachers to work collaboratively to look at data to help improve instruction and assessment tools. Principal 4 stated,

I think gone are the days where teachers would sit in their classroom, close the door and think what is happening in my classroom is my only concern. I think we live today in an environment where we urge teachers to sit down together and work collaboratively on themes, common ideas, and common strategies that focus on student success.

He continued to say, "I think that collaboration is one of the key pillars you as a principal have to have in a school." Principal 3 added,

I have a school success team made up of teachers, guidance counselors, administrators, and support workers and we looked at our data and decided that we needed to create time for teachers to work together and to come up with smart goals...they created assignments that kids can do, so that kids are engaged. Both principals agreed that data provides valuable knowledge for learning teams as it helps them to focus on student strengths and weaknesses.

Similarly, Principal 1 concluded, "I really try to get teachers to look at data and what is being done in the classroom. Teachers need to look at where students are having problems and work together to find solutions." All principals agreed that creating collaborative time for teachers to work with data together to improve instruction is most

important -- "You absolutely have to have that collaboration." Therefore, the findings suggest that a key shift in the role of the principal in data-driven environments is the need to create learning teams and a collaborative work environment. The principals agreed that this can be challenging at times. The challenge of creating time and structures to support learning teams was noted by all 4 principals. One principal supported the revision of the school day to include time for teacher collaboration. Another principal stated that she would create time by using her budget to cover teachers when they were out of their classrooms.

All 4 principals identified the creation of collaborative time as the most important task of the principal in relation to instruction. The importance of collaborative time to look at data and instruction represents a shift in the thinking of the principals. The principals agreed that they spend most of their time working with teachers to create trusting and supportive learning teams. As one principal stated, "most of my day is spent with teacher issues. It is people management, although I hate to use the word management;" and similarly, "if we are really about the human connection between student and teacher, then data and policy comes second."

Three of the 4 principals suggested that conveying this shift in thinking and practice, having teachers work collaboratively with data to improve instruction, is often an obstacle because of the teachers' own perceptions and perspectives of data. It then becomes the role of the principal to assess those perceptions and attempt to shift the teacher's thinking by providing opportunity for discussion, reflection, collaboration and instructional improvement. As Principal 2 stated,

you know, before teachers were very resistant about trying new ideas, now data can help spur on the need to look at some of the other areas; it is necessary for teachers to deal more with data and deal more with day to day curriculum issues. He noted that one of the largest challenges is finding the time in the school day to truly give teachers dedicated time to reflect on data collaboratively. He added that after school there are a number of other school activities occurring and "you can't shut down the sports and all these other things going on after school," so the challenge remains finding time during the school day.

Principal 2 also suggested that the hiring process of teachers can also be an obstacle in creating a collaborative learning team. He indicated that before the current hiring guidelines that were in place, hiring was left up to the individual principal who had "the opportunity to hand-pick teachers for the school knowing that we want to focus on data." He suggested that this allowed principals to select teachers who shared a similar vision and perception toward data use. However, principals have to follow the hiring guidelines outlined by the teacher federation which takes away much of the principal's authority. As well, teachers now more commonly move between schools and principals are continually challenged by presenting their vision to new staff members who may not share the same insight.

Similarly, Principal 1 stated, "ironically, you have to convince teachers first, not students, but teachers first that we are able to be successful and that does not just mean giving away easy marks." He continued to state that teachers are concerned with the integrity of the curriculum and it is difficult at times to get teachers to "look for different types of testing that would result in the same curriculum without undermining the

teacher's professionalism." He suggested that the teachers were hesitant about change until they saw some success. He stated that similar to defending his school to the community, he needed to use data to convince teachers that students were improving and that there needs to be an improvement plan in place. He added,

it does take some time...I am on year 3 of this change. First we had to work with data, then we had to work on convincing teachers that we need to make some changes, then we have to work with those changes.

Likewise, Principal 3 suggested that in order to have teachers work collaboratively with data, teachers need to know that "I support the professional judgment of teachers and I will back their professional judgment. I will sit in on parent and teacher meetings, and I support teachers who move forward. If you support teachers, you support students."

All principals agreed that there is a need to create a trusting and supportive environment for teachers to work with data. Principal 4 stated, "once staff learn and begin to trust in what you are doing with data, that you are not making an attack, you start to get more people on board." He commented on the importance of making data transparent in order to create a trusting environment. He agreed that,

it is a big shift from what teachers are used to, how they were evaluated as students; so it's a big shift and now we are asking them to work in a different area of learning and for some the journey is going to take a little longer.

Similarly, Principal 3 agreed that the challenge is to create a shift in thinking for teachers, "it is not about throwing data at teachers, it is about a shift in thinking...proving that every student can achieve, we just have to find that connection."

The comparison of principals' responses suggests that the role of the principal in data-driven environments has shifted to focus on collaboration, creating learning teams, shifting teachers' perceptions, providing support and trust for teachers, and leading people through the fears, misconceptions, and uses of data.

### *Using Data for Instructional Leadership*

Principals also suggested that their role as an instructional leader changed as a result of data-driven instruction. As Principal 4 stated,

I think you will see that the instructional leadership part of the job is probably going to be one of your biggest challenges. A lot of us go into the job because we want to work directly with curriculum but we are inundated with so many other tasks that you are challenged to stay focused on curriculum.

He continued to state that it is "hard to know if teachers are really using data to set lessons and if that is helping." Both Principal 2 and Principal 3 suggested that their role as an instructional leader is two fold: (a) creating time and structures for collaborative time, and (b) providing program pathways for students. Principal 2 indicated that data have helped to create new program pathways to assist students in being successful. He stated that "at some point the principal loses influence over the instruction of curriculum" and, therefore, most principals are more concerned with the overall success of the student than working directly with instructional practices. Principal 4 suggested that his role in relation to instruction is to "create an environment where students have multiple opportunities to demonstrate their learning and skills" again referring to the principal's role in providing program pathways, courses, and learning opportunities for improved instruction.

The comparison of responses suggests that principals perceive that the focus on data and collaborative learning teams allows them to have influence over the instruction of curriculum without the need to be the expert. In other words, because principals value data to create knowledge, data give principals an avenue into the classroom and give them some control over instructional practices and pathways. All principals stated the importance of teachers working to improve instruction, and saw their role as a provider for this opportunity. As well, all principals agreed that their role is to create learning teams, to promote reflection and collaborative time for discussion about instruction, to support learning teams by providing data, presenting the successes seen in the data, and using financial resources to support the structure of learning teams. By normalizing the use of data through a common, collaborative practice, principals believed they were able to persuade teachers to shift their thinking in a similar direction.

#### *Changing Perceptions of Accountability*

When responding to issues of accountability, all principals agreed that it was more important to demonstrate a proactive commitment to a school improvement plan that highlights data results, than to respond to the results of years past. Principal 1 stated:

parents are not calling asking about data...they don't have the same knowledge.

It has been the administration that has brought forward the data to the parent community. Parents simply want to know that there is a plan in place and that their child can do well in this school.

Similarly, Principal 4 commented that,

there is not pressure from the community or the supervisory officer to be accountable for all data sources, but rather an expectation that we are using data

to support goal setting. We are expected to put in a school improvement plan for our school community at the beginning of the year and I guess it is really incumbent on us to go back and look at it to see how we are doing.

Likewise, Principal 3 stated, “if I had to tell you how I use data for accountability purposes really, it is in my school goal setting so I can budget well.” Again, all 4 principals agreed that they are less concerned with the data results and more concerned with how the data are used for improvement.

In regards to EQAO as a measure of accountability, 3 of the 4 principals stated that they put very little stock into it. Principal 3 stated, “the school I am in has jumped five points over the year and I don’t care, not one bit. What happened to that kid who was not passing anything; the question is what are we going to do about that kid?”

Similarly, Principal 2 stated,

I would be happy if EQAO dissolved tomorrow. We have the ability to create and track our own data. Having an outside body doing testing, I am not a fan of because it seems so artificial. I think the day to day evaluation and assessment, and taking a look at that data, is much more useful.

The principals suggested that they believe they are accountable to their students.

Principal 3 concluded, “I know the importance of data, but I also know the importance of not losing children – this is about children. I believe that data is starting to overtake kids; you can’t slot kids into the same data analysis results, every kid is different.”

### Summary of Findings

This research supports the finding that principals do perceive their perspectives on EQAO have changed as a result of an increased demand for data-driven environments. It



supports the claim that principals believe their responsibility toward EQAO and data have shifted over the last 7 years, yet their role as instructional leaders has stayed the same.

After a constant comparison of responses and codes, themes of change emerged: (a) perceptual shifts about data, (b) using data to shift perceptions of the school, (c) using data as a focus for teacher collaboration, (d) using data for instructional leadership, and (e) changing perceptions of accountability.

The findings suggest that the role of the principal in data-driven environments is to lead people, leading and creating collaborative learning teams, and persuading teachers to see the benefits of using data to improve instruction and the success of students.

The interpretation of these themes was conceptualized in a figure or framework for data-driven environments (see Appendix C). Each thematic role change represents a shift in the principals' perceptions of data, and supports the claim that principals continue to be challenged in their role. However, the findings also suggest that principals did not perceive there to be additional pressures, role ambiguity, or role conflicts as a result of data-driven initiatives. In fact, they describe their role as less ambiguous as data have given them a focus or a new discourse for the promotion of student success. The principals suggested that data have become central to their goal setting, decision making, and relationships with teachers. Therefore, their role as a leader of people has created greater clarity of the expectations of their role. This suggests that principals have accepted the influence of data in schools as a positive measure for school improvement and that this has allowed them to use data to promote improved instruction and persuade teachers to share a similar approach.

Principals perceived that there was a change in their own thinking of the use and function of data and EQAO testing in schools. They believed their understanding of data has changed from when EQAO was first introduced in schools. They suggested that they first perceived EQAO as an evaluative tool that would be used to rank schools and determine the overall success of the school. They stated that based on their experiences with EQAO 7 years ago, they felt a certain amount of pressure to secure high test scores, and a fear that test scores would be used to evaluate their work. However, all 4 principals stated how they believe this perception has changed as they experienced less pressure from parents and supervisory officers to secure high test scores over the years. Instead, they believed that data should be used to promote the positive successes of their school and as a source of information for teachers to assist them in the improvement of instruction and student learning. This change in perspective can be attributed to an increase in data sources available beyond EQAO, and the belief that a data-driven focus will remain central in schools.

The findings suggest that these principals perceive that valuable knowledge is created from data. The principals stated that they no longer view data as a final evaluation of their work, but as a means to improve instruction. They suggest that data can be used in a positive manner to promote the success of the school and to improve instruction. They stated that they believe data should be presented to allow teachers to see the success of the school and to work collaboratively to improve student learning. In other words, the principals believed that the information gained from data and EQAO test scores can create valuable knowledge, that data and EQAO testing are driving the teaching of curriculum and can produce positive effects. This shift in thinking can be

attributed to the influence of their school board's data-driven, professional learning community focus. Principals suggested that they are expected to use data in school improvement plans, and in order to make that data valuable, teachers must work collaboratively to recognize that data can produce knowledge for student improvement.

The principals concluded that their role now includes the responsibility to persuade and convince teachers to share in a similar shift in thinking about data. They argued that it has become their role to shift the thinking of teachers to also view data as a valuable source of knowledge. They suggested that this role is reflected in the many tasks they encounter in data-driven environments such as promoting the positive successes of the school to teachers, parents, and students, defending the positive culture of their school, and creating collaborative learning teams of teachers to work with data to improve classroom instruction. They also stated that much of their time is used convincing others to view data in a similar manner as they do, and to accept the ideology that valuable knowledge is created from data. This change in role can be attributed to the principals' need to focus their role responsibilities on curriculum and instruction as many of their managerial tasks take them further away from the teaching of curriculum.

Overall, the findings suggest that principals have shifted their own thinking and now perceive that valuable knowledge is created from data. As a result of this shift in thinking, the role of the principal in data-driven environment has shifted as well. The principals perceived that their role now includes the responsibility to guide others to think about data in a similar manner, and to persuade teachers to see the value of working collaboratively with data to improve instruction. However, their role as instructional leaders in data-driven environments has not changed as first assumed. In fact, data have

allowed them to reenter the classroom through discussions on how to improve instruction and through the creation of teacher learning teams. It appears that although their perspectives and tasks have changed, their role as leaders of people in data-driven environments remains traditional.

## CHAPTER FIVE: SUMMARY, DISCUSSION, AND IMPLICATIONS

The creation and implementation of the Educational Quality and Accountability Office (EQAO) and the Secondary School Reform policy in Ontario in 1996 prompted many changes to the public education system. Perhaps one of the most influential changes was the inclusion of standardized, province-wide testing of students in the areas of math, language, and literacy. In secondary schools, the successful completion of the Ontario grade 10 literacy test became a graduation requirement for all students. EQAO testing and test-score reporting positioned accountability for student achievement at the center of school and curriculum reform. It also added to the duties and responsibilities of the principal by requiring a focus on student test scores as a way to improve student learning. This has contributed to the establishment of data-driven environments in public education.

The purpose of this qualitative research was to examine how Ontario secondary school principals perceived their role has changed as a result of the increased demands for data-driven environments. This chapter summarizes the study and presents a discussion on the relevance of the findings for educational leadership. It outlines implications of the findings for educational practice, theory, and further research.

### Summary of the Study

This study began with the following guiding question: How do secondary school principals, with over 7 years experience, perceive that their role has changed in response to the increased demand for data-driven school environments? The literature identified various key roles principals play in the leadership and management of schools, including that of manager and problem solver, instructional leader, transformative leader and agent

of change, political leader, and community builder. The literature suggests that the scope and number of roles principals play have added to the complexity of the position. The literature on data-driven decision making and accountability identifies additional responsibilities principals encounter when working in a data-driven environment, suggesting that the role has become even more complex as a result of increased expectations related to developing capacity to make decisions based on student achievement data. This research directed attention on how principals perform their roles differently as a result of the demands imposed by data-driven school environments.

The subquestions that narrowed the research were framed by Goodwin et al.'s (2003) research on principals who work in data-driven environments, and the role conflicts they identified. They found that data-driven work environments intensified role conflicts because of an increased ambiguity between what is expected of principals and what they are able to achieve in practice. The research sought answers to the following questions:

1. How do secondary school principals understand and demonstrate accountability differently,
2. How do they approach instructional leadership differently,
3. How do they lead/manage the school differently,
4. How do they spend their time differently,
5. How do they perceive their work has changed as a result of data-driven work environments?

A generic qualitative research methodology was followed. Four secondary school principals were interviewed using semistructured, personal interviews. The interviews

lasted from 45 to 90 minutes, were digitally recorded, and took place over a 3-month period. All interviews were transcribed by the researcher, and a copy of the transcripts was returned to the participants for their review. No changes were requested from the participants. A reflexive journal was also kept by the researcher to help reflect on the data collected and to track initial categories of responses for data analysis.

The analysis of responses identified five themes principals encountered with respect to their additional tasks and responsibilities as a result of working in data-driven environments: (a) perceptual shifts about data, (b) using data to shift the perceptions of their schools, (c) using data to inform instructional leadership, (d) using data to focus on teacher collaboration, and (e) the changing perceptions of accountability.

The findings revealed that over time, all 4 principals had shifted their views about the usefulness of standardized data as a means of school improvement. As well, they noted that their role had shifted away from simply managing and understanding test scores toward using data to improve instruction and increase student success.

### Discussion

The principals indicated that they lead and manage their schools differently in the present context of a data-driven, decision-making environment. They noted a shift in their thinking about data from a final evaluation to a valuable tool used to improve student success. They stated that EQAO has helped them refocus their role on instructional leadership, and how it has helped them to shift the perceptions of their schools. The principals did perceive that data-driven environments had helped them to clarify their roles within schools.

*How do Principals Lead and Manage their Schools Differently?*

Participants reported that they initially experienced an increase in role responsibilities with the introduction of EQAO testing. At first they viewed themselves as managers of EQAO testing and data collection. They noted that at first the managerial tasks surrounding EQAO testing were unclear, as were the expectations of their administrative role in a relatively new culture of data. In this regard, the principals experienced some initial role conflicts similar to those described by Goodwin et al. (2003) with respect to role ambiguity. For example, the principals noted that they were unsure how to approach data-driven decision making as they felt isolated from the secondary school reform process by being removed from the teachers' union. Similar to Marks and Nance's (2007) finding on principals' role conflicts, the participants described an initial attempt to align external policy influences with the needs of their school through school budgets and the identification of student needs. The participants described a conflict between the management of data and the use of data.

Over time, and through experience, the participants suggested that their thinking about the value of test data shifted and, therefore, that their leadership role also shifted. When they began to actually work with data, they began to realize that they could use data to shift the perceptions of their schools in positive ways. They now conceptualize their role as one that includes a responsibility for shifting the thinking of teachers and other stakeholders to view data-driven decision making in a positive light. For example, they suggested that over time their acceptance of data as central in schools has helped them define their role with reference to leading teachers to use data for instructional improvement.



This finding conflicts with Goodwin et al.'s (2003) finding that suggests that principals in data-driven environments experience increased role ambiguity. Although that may have been true initially, the participants in this study were able to align the externally mandated policy to clarify their role as leaders of people in data-driven work environments. The participants suggested that their role has actually become less ambiguous and complex because they are able to focus on data as a way to guide teachers to improved instruction and teacher collaboration.

*How do Principals use Data to Approach Instructional Leadership Differently?*

The role of the principal as described by the participants looks similar to that of the instruction leader as described by Leithwood (1986) in the 1980s and early 1990s. The participants stated that their refocus on instructional leadership occurred after they were removed from the teachers' union in the mid 1990s. They noted that removal from the teachers' union changed their relationships with teachers, and had moved them further away from teaching and instructional practices. Using data to drive instructional practices provided an avenue back into the classroom.

As a result of being removed from the teachers' union, the participants described a loss of positional power and control over curriculum matters. Initially, participants feared that EQAO data would be used as a form of evaluation of the work of principals. Participants noted that they initially felt removed from the decision-making process related to the implementation and direction setting of EQAO testing, and they questioned the purpose and validity of including standardized testing as a form of data collection. At that time, they felt subjected to the legal authority of the Ontario Ministry of Education

and the top-down authority of the school boards and they were unclear as to how data would be used in schools.

With time, participants realized that they could reclaim their positional power as curriculum leaders by accepting EQAO testing as a legitimate and valuable source of knowledge for improving student learning. Fowler (2004) suggests that “authority depends on legitimacy, the belief that the person in authority has a right to special power” (p. 31), and that legal authority is “conferred upon those who hold positions of responsibility within the organization” (p. 31). EQAO testing gave principals legitimacy because data from standardized tests trumped teacher knowledge as the basis for decision making in schools. This added some legitimacy for principals to be involved in instruction, not because they were necessarily master teachers, but because they had access to this particular type of knowledge that was driving instructional reform.

The acceptance of the explicit use of power by the government to develop data-driven policy initiatives allowed principals to regain some control over instruction. The participants suggested that they began to find ways to demonstrate accountability beyond test scores. For example, they made reference to collaborative teacher learning teams, and improved instruction as ways to demonstrate accountability. They suggested their perception had shifted because they recognized the value of the various data available to them and not because of a pressure to perform. They changed their role to focus more on the responsibility to guide others through using data to improve instruction.

Fowler (2004) would describe this shift as the use of implicit power, the power of persuasion and mobilization. She describes implicit power as an awareness and acceptance of the play of power in standard-based educational reform (p. 36). Fowler

suggests that educational leaders gain implicit power when they are able to mobilize others toward a common goal within the given limitations of the policy framework. This understanding of implicit power is closely tied to Marks and Printy's (2003) research on the integration of instructional and transformative leadership. Marks and Printy (2003) suggest that leaders in data-driven cultures must transform policy into practice and demonstrate how student achievement data can be used to improve and change instruction.

In this study, participants suggested that they were expected to support the vision and direction of the data-driven policy because of the position they held. They viewed it as their responsibility to persuade teachers to recognize the value of data, and to create a structure for teachers to use data to improve instruction. This suggests that they understood their role in using implicit power has to focus more specifically on working with teachers and with curriculum. EQAO policy ultimately helped participants to better define their role. In fact, the participants described their role as less complex because of their role in implementing a Ministry mandate. This is in contrast to Goodwin et al.'s (2003) finding that principals working in data-driven environments experience a role conflict between the responsibilities of an instructional leader versus a school manager. Over time, the participants did not experience pressure to secure high test scores, and they gained the perception that valuable knowledge to improve instruction can be gathered from standardized test data.

#### *How do Principals Understand and Demonstrate Accountability Differently?*

The participants stated that they did not perceive a loss in expert power (Cibulka, 2000) because they continued to believe that EQAO testing was not the sole indicator of

accountability. The participants did suggest that although they were not part of EQAO policy direction, their influence did not decline. Perreault (2000) suggests that principals were seen as part of the overall control mechanism rather than an instructional leader in the development of accountability and standardized testing reforms. He suggests that the voice of the principal was silenced because of the political importance to improve test scores. However, the participants of this study indicated that although the data-driven environment of their school board was mandated to them, they continued to view themselves as instructional leaders. The principals accepted the idea that accountability can be demonstrated through improved instruction and collaborative learning teams.

During the late 1990s, many principals retired or left the position of principal because they felt isolated from the classroom (Volante, 2007), something very different than they experienced in their principals' training courses. However, the participants in this study choose to remain in administration during this time of change and ambiguity. Therefore, it can be argued that these principals needed to find some way to approach the changes in a positive manner while continuing to adhere to their own personal goals. The participants suggested that by accepting the notion that accountability is demonstrated through improved teacher collaboration, it has allowed them to regain control over instructional decision making. They suggested that over time, data and EQAO testing have given them the expertise to persuade others to shift their thinking and acknowledge that accountability can be demonstrated through improved instruction and student achievement.

Over time, the acceptance of EQAO data as a positive measure of student improvement and, therefore, accountability represents a further shift in the participants'

perceptions of accountability in data-driven environments. One participant suggested that one way to survive the challenges of the accountability era was to not let data consume his role, but to place a positive lens over the mandated initiatives. As the participants suggested, this shift in thinking can be attributed to the many policy directions and additional funds released by the Ministry of Education to support the provincial framework for student success. The participants stated that the notion that accountability is demonstrated through improved data is a result of the current discourse of data-driven accountability in education.

Kelly (2003) suggests that edu-speak, the manipulation of the language of education, has manipulated the way principals think about education (p. 4). He argues that educational policymakers have infused the importance, and language, of data-driven accountability in all areas of education and that often educators accept the current discourses of education without much criticism. He suggests that not only has the language of education been affected by the global, competitive market, but that the discourse of accountability has, in fact, limited the complexity of education leadership. The participants of this study, by adhering to the language of accountability and data-driven decision making, have simplified the critical analysis process of collecting data and, therefore, have simplified their role. One participant suggested that it is no longer necessary to subjectively evaluate the success and failures of school because he now has objective data available that demonstrates student success. Because the idea of student success cannot be easily defined or framed, the participants suggested that it is simpler to deal with such complex issues through objective data. Participants suggested that if they

were not following the current educational trends, they may be doing something wrong and, therefore, they are not being accountable.

*How do Principals Perceive their Work Environment has Changed?*

The demographic data for this study suggests that the data-driven work environments these principals now find themselves in can be attributed to the vision of the school board in which they work. The school board established a board-wide vision for professional learning communities over the last 7 years to focus on working with EQAO data. The importance of collaborative learning teams is well-rooted in all 4 participants' responses as they suggested that the responsibility to improve test scores can be achieved through the demonstration of teacher collaboration. The participants stated that in order to convince teachers that data can provide knowledge, a collaborative approach was most valued. The participants noted that the building of relationships, trust, and collaborative learning teams are most important in their current work environments. Similar to Moore and Kelly (2009), the participants suggested that collaborative learning teams can be used to regain control over curriculum matters.

Although professional learning communities depend on the development of a shared vision between all staff, and a leader in a professional learning community must be sensitive to the needs, desires, and fears of the collaborative group (Mitchell & Sackney, 2006), principals may perceive learning teams as an avenue to create sameness as opposed to a true shared or distributed leadership style that promotes diversity. Goddard (2003) suggests that shared or distributed leadership is dependent on balancing the diverse thinking and skills of the group. He suggests that distributive leadership is not creating collaborative learning teams in order to create sameness, but rather to tap

into the individual strengths of the teachers so that they can work together to build a diverse team. The principals, therefore, now face a new conflict when being leaders of people in data-driven environments, using collaborative learning models to build a diverse team versus using collaborative learning teams to sameness.

The assumption created is that when teachers work together, improvements to instruction will occur. However, what happens when the values and beliefs of teachers differ; Is there room in a learning team for critical, diverse, or opposing thoughts? Without diverse thinking, collaboration may actually be limiting the ability of people to produce new and innovative ideas. A true collaborative learning team should have a critical lens, be able to produce new thinking, and be open to a variety of points of view. A collaborative approach cannot assume that all teachers will, or must, follow a similar thinking to that of the principal. What comes into question is the principal's own fear of letting go of control, or the fear of losing power over curriculum direction, and therefore, school culture. The collaborative approach may be used to persuade the thinking of teachers and therefore to indirectly persuade others to follow a common goal as identified by the principal. In this regard, the power of control is transferred back to the principal.

Similarly, Moore and Kelly (2009) suggest that current educational leaders must find a balance of power gained through the traditional hierarchical structure of school organizations and the contemporary theories of shared and distributive leadership. They suggest that principals face a new conflict in the era of accountability between empowerment versus control of the group. In other words, principals must be able to communicate the vision of the school to empower staff to work together while being cautious not to perceive collaborative learning models as a form of power or control over

the group of teachers. This conflict is reflected in the responses of the participants who described a desire to persuade teachers to work collaboratively while being limited by the resources and time to do so effectively, and without destroying relationships.

The findings of this study suggest that data-driven environments have caused the control over curriculum to return to the power of the principal. It suggests that principals perceive knowledge is gained from data, and that this knowledge creates authority. In order for principals to maintain control, they must persuade others to follow their shift in thinking. It is through this shift in thinking that principals gain authority. This perspective, in fact, simplifies the role of the principal in an otherwise complex environment of accountability. The assumption created is that authority is truly concerned with knowledge; those who gain knowledge in a certain subject, gain authority on that subject and, therefore, know the best way proceed. Yet, principals cannot forget that the base of knowledge in a postmodern, diverse organization is wide and vast (Bennett & Anderson, 2003). Teachers who do not hold the same explicit position of power have much knowledge to offer the organization. It is only through a shared or distributed leadership model that collective knowledge is valued and true authority is gained (Fowler, 2004). The division of power in a postmodern organization must become a more fluid partnership.

As Fowler (2004) states, “power and educational policy cannot be separated because the play of power shapes the outcome of the policy process” (p. 26). Principals have power because of the position they hold in the organization and, therefore, have power to carry out the policy directions of the ministry and school board. Because the principal is the one charged with the daily interactions of individuals and groups,



principals must be critical of the play of power and realize that all stakeholders may not adhere to the formal authority of power which they hold or communicate. Principals must be cognizant of the diverse thinking of teachers, and other groups, so that all stakeholders have a voice in the decision-making processes. Just as the principals felt conflicted or isolated when EQAO was first implemented, they must not attempt to shift the thinking of others in the same way as they may now be isolating their staff and community. Principals must be cautious not to view data as power. This creates a traditional closed system.

Overall, the principals' willingness to share their perspectives was most positive. These principals clearly wanted to make a difference in the lives of their students and did not want to get lost in the negative approach or opinions toward EQAO and data that are, from my experience, somewhat common among many educators. Perhaps the timing of this study at the end of June was appropriate to have principals reflect on their changing role. All 4 principal were eager to share their experiences and commented on how they appreciated the study and the time to reflect. The principals identified the importance of reflective time but suggested that they, too, find it hard during the busy school year to truly reflect on their own role. Perhaps future studies could examine the importance of self-reflection in the role of principal. All 4 principal commented on how they felt this study was timely and important. All 4 principals were interested in seeing the final results, perhaps suggesting that principals, too, need time to collaborate as learning teams to share their own approaches toward data and data-driven environments before attempting to persuade the thinking of others.

## Implications

The participants suggested that their role has shifted to becoming leaders of people in data-driven environments. They defined their role as being responsible for shifting the thinking of others, through collaborative teacher learning teams, in order to demonstrate that data can be used to improve student achievement and demonstrate accountability. They suggested that the knowledge obtained through EQAO data sources have reinforced their legal and organizational authority (Fowler, 2004), allowing them to regain control over curriculum matters and instructional practices. The findings suggest that educational leadership, in the current environment of accountability, continues to be concerned with power and authority. It can be argued that the increase of available data, including the inclusion of EQAO testing, has caused principals to perceive that data can be used to regain authority in their role. This claim creates several implications for educational leadership both in practice and theory.

Although data-driven environments and accountability measures allow principals and teachers to use data to examine the needs and goals of their schools, data-driven environments may be limiting principals and schools from moving forward and establishing a diverse, postmodern organization that distributes leadership in order to access the knowledge and experiences of all members of the school community (Goddard, 2003). In fact, data-driven environments have impacted the role of the principal and have created a more traditional looking relationship between school leaders and teachers. Although the principals describe themselves as leaders of people, the play of power created by data-driven environments has created an obstacle for principals who want to build a true collaborative working environment. The challenge for principals is

to create a collaborative working environment that supports the diverse and critical thinking of all teachers as opposed to normalizing the thinking of others (Moore & Kelly, 2009) through a singular, predetermined goal that can be achieved collaboratively.

The findings suggest that principals have accepted the notion that collaborative learning teams are valuable; yet, the purpose of creating collaborative teams appears to be used as a structure to gain consensus and, therefore, control. This finding creates several implications for future research in educational leadership in the 21<sup>st</sup> century. Although the principals stated that relationship building is a central part of learning teams, they did not account for how relationships are formed when the objectives and goals of the learning team are dictated by the principal or data sources. The findings suggest that principals now face a relationship building conflict in data-driven environments and future research should examine how principals can build capacity to improve relationship building as part of the collaborative model.

Similarly, the findings suggest that principals have assumed that collaboration means that teachers will work together to improve instruction and, therefore, student achievement. This assumption creates further questions about the creation of learning teams and provides additional implications for future studies on the theories of educational leadership and school organization. How can principals assess if collaborative teams are truly working together to improve instruction? Do collaborative learning teams suggest that all teachers are working toward one goal or share in the creation of a central goal? What if teachers have differing opinions and experiences? Future research should examine how the social constructivist theory (Morley & Hosking, 2003) and distributed leadership theory (Gronn, 2003) can influence the organization of

leadership and control in schools so that the relationships formed through collaboration are inclusive, diverse, critical, and shared.

### *Implications for Practice*

The knowledge that principals perceive themselves to be leaders of people in data-driven environments may impact what educators do in practice. Firstly, perhaps more training is needed to be available to principals to help them create inclusive working relationships. I know from my experience in the principal qualification course that much time continues to focus on the legal responsibilities of the principal and the many duties they will encounter. Although the knowledge of the Ontario Education Act is important, it may be more valuable to have principals reflect on what it takes to form supportive, collaborative learning teams that focus on relationships instead of control and power.

The findings suggest that the creation of collaborative learning teams in data-driven environments is used to promote sameness; they are used to persuade teachers into normalizing their thinking about data in an attempt to create a common goal. The assumption created is that data do provide valuable knowledge, and that this knowledge is superior to the individual knowledge teachers hold from experience or intuitive thought. This way of thinking creates a closed system of practice as it places the authority in the hands of those who control the data, such as the principal. In practice, collaborative learning teams in data-driven environments may create a culture where teachers do not feel supported or valued as success is defined through data and achievement as opposed to the actual practices in the classroom.

The role of the principal, therefore, appears to be highly traditional, attempting to maintain order and control in an otherwise complex and changing environment. In practice, the use of collaborative learning teams align more closely with a traditional view of leadership seen through the lens of institutional theory than a dynamic view of leadership that is people centered (Ogawa, 2003). According to Ogawa, institutional theory argues that organizations exist as a means to create order, and it is the role of the principal to maintain that order. However, he states that, "effective leadership must create a balance between order and disorder, enabling teachers to deploy the knowledgeability and capability that they need to do their work" (p. 5). He suggests that teachers do bring much knowledge to their work and that they must not be removed from the goal or direction setting of collaborative learning teams. Collaborative learning teams must, therefore, be formed from the knowledge that teachers hold and not by the perceived knowledge created through data. In practice, data-driven environments have created a divide between the teachers' knowledge and the knowledge gained from data. The role of the principal as a leader of people can only close this gap when collaborative learning teams are seen as an avenue for exploration and not as a mechanism for control.

The role of the principal as a leader of people in data-driven environments is challenged by the duty to adhere to the formal authority and directives outlined by the district and Ministry of Education, and the need to include teachers in the decision-making processes of how such directives are carried out in schools. Principals are charged with building a relationship between the use of data and the practices and needs of the teachers and students. It becomes the role of the principals to bridge the gap between policy and practice. This requires principals to shift their thinking about the

leader-follower dualism in which leadership is seen as being controlled by a limited number of people. In order to build positive, collaborative working relationships, principals must distribute the perceived power and authority gained through data amongst all members of a collaborative team. As Gronn (2003) suggests, distributive leadership requires the dispersal of power and influence across a group. He states that, “leadership is probably best conceived as a group quality, as a set of functions which must be carried out by the group” (p. 62). He argues that leadership is not an individual quality, but rather a quality that is achieved through the practices of the entire group. In this regard, principals in data-driven environments may be able to address the relationship building conflict they face by distributing the function and use of data to all teachers. In other words, distributive leadership shifts the power and control out of the hands of the principal and into those who work directly with students and student achievement data.

This shift in leadership signals a need for a change in the current educational structure and organizational philosophy which remains quite traditional. If principals value the importance of collaborative time where leadership is shared amongst the group, then school boards need to look at ways to support principals in the creation of distributed, collaborative learning teams. This may require additional funding, release time, professional development in relationship building, or a change to the actual hours of the school day. I know as a classroom teacher that I, too, value the time to reflect and meet with other teachers and am often frustrated by the lack of time to do so. The sharing of best practices among teachers is certainly not new; however, with a decrease in professional activity days in Ontario, the increase in expected instructional time, and the increased diversity of the Ontario student body, collaborative time needs to be included

into the structure of the school day. By giving control over the direction of collaborative learning teams to teachers, distributed leadership can be achieved.

Likewise, the findings of this study suggest that although EQAO and data collection and analysis seems to be well-rooted in the current educational accountability environment, principals do not perceive that EQAO has consumed all of their time or that it has changed what they value most in education -- student engagement and success. Perhaps the focus on student achievement data has taken away from the intuitive knowledge that many educators hold.

From an international and political point of view, EQAO testing seems to serve its purpose by positioning the Ontario education system as accountable to student learning; yet, the actual practices and perspectives that principals hold toward EQAO are very different. Perhaps it would be more valuable to move toward an in-school model for testing and data collection.

Moreover, the findings of this research suggest that EQAO testing and data-driven accountability may not be as high stakes for schools as first thought. The principals clearly did not focus their attention on EQAO results nor did they experience an overwhelming response from parents when test scores were low. Perhaps principals and parents are finding other ways to gauge the accountability of the school and system. It seems in practice that principals may have a better understanding of their school needs when given time to reflect and build relationships with teachers. Perhaps the successful implementation of learning teams and learning goals gives principals a more practical tool for improvement than externally administered testing.

*Implications for Theory*

The findings of this research add to the body of knowledge surrounding educational leadership, organizational theory, and building capacity for professional learning communities. It is evident that educational leadership remains closely tied to theories of power and authority, perhaps even more when viewed in the context of data-driven environments. A focus on data in schools has influenced principals to find ways to demonstrate accountability through improved instruction and to guide teachers to use data, such as EQAO, to demonstrate increased student achievement. This shift in role has reinforced a traditional view of leadership and suggests that it is the leader's responsibility to persuade others to buy into the vision of one predetermined goal. It suggests that the leader has the authority to have control over the thinking of others. Data, when perceived as knowledge, have influenced the play of power between leader and follower. The role of the principal in data-driven environments can look highly traditional when the leader-follower relationship remains.

This traditional view of leadership suggests that a continual conflict exists between the roles of the principal as leader of policy versus a leader for people in data-driven environments. The challenge for principals is the ability to form positive working relationships that will share the power of control over data, EQAO, and other mandated accountability measures. Goddard (2003) suggests that leadership in the postmodern era is about rediscovering community. He argues that principals function within a landscape that is "multidimensional and multifaceted" (p. 13). He suggests that school leadership lies in the ability to balance the demands of the environment, the students, the community, and the staff by using a variety of leadership styles and approaches. He



argues for a shared leadership model where the power of influence is distributed among all groups. Much like the contingency theory, he argues that principals must use both their tacit knowledge and explicit knowledge to balance the influences of the environment, such as the vision of the school board, with the needs of the school community. Similar to Gronn's (2003) argument for distributed leadership, Goddard suggests that the responsibility, authority, power, and control of leadership must be shared.

Shared leadership can help principals in data-driven environments build positive working relationships by distributing the control and power amongst the group. Morley and Hosking (2003) argue that leadership is social, extending the social constructivist theory of leadership and the social psychology of organizing. They state that the "relationships between people and contexts is one of mutual creation: so, people create contexts and contexts create people" (p. 43). They suggest traditional views of leadership fail to appreciate the necessity for people to make sense of new things by placing them in existing constructions, to recognize the importance of listening to other voices, and to engage in disputation with change (p. 44). It is through a social constructivist framework that principals can find the capacity to build positive, collaborative working relationships.

The functions of the shared, distributed, and social constructivist leadership frameworks are closely aligned with the theories of communities of practice and collaborative learning teams. As Sackney and Walker (2006) suggest, there is a continual need for building capacity for collaborative learning teams. Professional learning community theory suggests that all principals and teachers share in a common vision for school improvement creating the assumption that all workers have a willingness to

participate. The findings of this research support the claim that not all principals and teachers easily accept a shared vision. The principals suggested that their role includes the responsibility to shift the thinking of others to share in the vision, yet not enough time is given for reflection and collaboration so that teachers can understand the shift. In other words, simply stating that collaboration exists does not mean that collaboration is occurring or that it is inclusive. Furthermore, when data are used to determine the goal of the learning team, and the vision of data is prescribed by the principal, the vision fails to be shared. Therefore, leaders of people in data-driven environments must distribute the responsibility to regulate and determine the form or direction of the learning team to the teachers, and other groups, within the school.

#### *Implications for Research*

The findings of this research also suggest that identifying the perspectives of principals is important in understanding how data-driven environments have changed the role of the principal. Although the size of the interview sample was small, and all 4 principals worked within the same school board, a qualitative study allowed for an in-depth reflection on what actual practicing principals value in relation to their role expectations. The principals' responses prompted further ideas for reflection that could influence future research. By identifying the limitations of this research method, it is understood that future research in understanding the role of the principal in data-driven environments should include the participation of elementary school principals and consider the responses of principals from a variety of school boards.

Future research may consider how data-driven environments have influenced principals to spend more time working with people. Although this research first assumed

that the role has become increasingly pressure filled, the findings identify a very different understanding of the principals' perceived role responsibility. What remains in question is why do these principals perceive there to be limited pressure to secure high test-score results, while media sources and the public and government influences continue to suggest that schools can be judged according to their test-score results? Why is there a large gap between what principals' value as important and what ministry-mandated accountability initiatives use to determine success? Are there other ways to demonstrate accountability other than student achievement data?

Similarly, future research may examine if there is, in fact, a role conflict or responsibility conflict faced by principals. These principals suggest that through their own reflection and shift in perception, their understanding of their role has become clearer. In other words, when research aims to understand the perspectives of practicing principals, it may find that principals do not face as many role conflicts as first assumed. Again, these principals were able to manage their own growth through a turbulent time. It would be interesting to understand how these principals formed a positive relationship to data when given little direction or training. Future research might ask if these principals are truly transformational leaders who have learned to transform data into knowledge, or are they simply aiming to survive among the multitude of changes? This research suggests a positive understanding of data is necessary for principals to influence their teachers and community.

Future research may also look more closely at the relationship between systemic change and personal role change. It could be argued that these principals experience some immediate changes to their role responsibilities, but that these changes were not

large enough to influence a change in their own leadership style, values, or beliefs. Future research should examine the extent to which data-driven environments have influenced the principal's personal educational philosophy or actual work life.

### Conclusion

This study explored the perspectives of how secondary school principals perceive their role has changed as a result of the increased demand for data-driven accountability and data-driven environments. Although this group of principals agreed that the additional pressures of data-driven accountability have not influenced their role as much as they first thought when EQAO testing was introduced in Ontario, they identified how their tasks have shifted as a result of the multiple data sources available to them, and their own change in perspective toward EQAO testing. They commented on how the use of data has impacted their role and has had a positive effect on the work they do by allowing them to influence the perspectives of teachers and parents in order to understand the positive successes of their school.

The findings suggest that the principals perceive the creation of collaborative learning time and the creation of a shared vision for student success in all areas of school life as the two most important role responsibilities when working in data-driven environments. The findings suggest that data, EQAO, and collaborative teacher teams, have allowed the principal to regain some control over curriculum. The findings suggest that the power of influence and persuasion has been reclaimed by the principal in what was first perceived as a culture of uncertainty. Therefore, the role of the principal in data-driven environments looks similar to that of an instructional leader. Although the

principals described a shift in their perspective toward EQAO, they continue to work as leaders of people.

This study highlighted the crucial role principals play as agents of change in their schools, and as leaders of positive and collaborative relationships in the era of accountability. It questions the role principals play in creating meaningful change, and it questions how principals perceive knowledge is created and where knowledge comes from. It questions if valuable knowledge is truly created from data or if principals have learned that in order to simplify their complex role, they must surrender to the edu-speak and top-down policy direction of EQAO testing and data-driven accountability.

Finally, the research suggests that a data-driven focus, and the creation of collaborative learning teams to working with data, although presented as tools for student achievement, may, in fact, serve as a tool for principals to clarify their role and regain control over curriculum and instruction in their schools. The belief that valuable knowledge is created from data suggests that data can be used to gain power and, therefore, support the authoritative role of the principal. By controlling the data, promoting the positive uses of data, persuading others to view data in the same way, and using collaborative learning teams, a shift in power is created. Data have allowed the principal to return to the classroom and gain control over curriculum. Data-driven environments have shifted the role of the principal and allowed them to become the authority on such matters as improved instruction, student achievement, and student success.

The principals in this study had shifted their own thinking about data and now perceive that valuable knowledge is created from data. They suggest their role is to then

persuade or guide others to think about data in the same way, to create collaborative time for teachers to use data to improve instruction in a supportive environment. This framework suggests that data-driven environments have caused the control over curriculum to return to the power of the principal. In order for principals to maintain control, they must persuade others to follow their shift in thinking. This perspective, in fact, simplifies the role of the principal in an otherwise complex environment of accountability.

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## Appendix A

## Frequency of Codes

CATEGORY	CODES	PARTICIPANT RESPONSES/NUMBER OF RESPONSES
CHANGE	Role change*	1,2,3,4
	School image	1,3,4
	Leading learning teams	4
	School profiles*	1,2,3
	Reflection on instruction	4
	Collection of data*	1,2,4
TASKS AND RESPONSIBILITIES	Creating learning teams*	1,2,3,4
	Defending/promoting school*	1,4
	Shift in teachers' perceptions*	1,2,3,4
	Instructional support	1,2,3
	Provider of data	3,4
	Data analysis	1
	Promoter of student success*	1,2,3,4
ACCOUNTABILITY	To teachers*	1,2,3,4
	To school community	1,4
	To demonstrate improvement *	1,2,3,4
	To school board	4

\* Codes that were selected as most reoccurring. Codes that were reduced and/or combined.

## Appendix B

## REB Ethics Clearance



**Brock  
University**

Office of Research Services  
Research Ethics Office  
St. Catharines, Ontario, Canada L2S 3A1  
T: 905-688-5550, Ext. 3035/4876 F: 905-688-0748

[www.brocku.ca](http://www.brocku.ca)

DATE: June 26, 2009

FROM: Ann-Marie DiBiase, Acting Chair  
Research Ethics Board (REB)

TO: Dr. Renee Kuchapski, Education  
Paul Paterson

FILE: 08-319 KUCHAPSKI/PATERSON  
Masters Thesis/Project

TITLE: A changed role: The perceptions of Ontario secondary principals working in data-driven environments

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The Brock University Research Ethics Board has reviewed the above research proposal.

**DECISION: ACCEPTED AS CLARIFIED**

- The Brock REB is now using the terminology "ethics clearance" rather than "ethics approval" to indicate that it has reviewed a project and found it to be consistent with ethical principles. Use of the "clearance" terminology is consistent with current practice by REBs. It reduces the likelihood that participants may confuse REB review with peer review of a project's scientific merit or general endorsement of the project itself. Please revise participant materials accordingly.

This project has received ethics clearance for the period of **June 26, 2009 to September 30, 2009** subject to full REB ratification at the Research Ethics Board's next scheduled meeting. The clearance period may be extended upon request. ***The study may now proceed.***

Please note that the Research Ethics Board (REB) requires that you adhere to the protocol as last reviewed and cleared by the REB. During the course of research no deviations from, or changes to, the protocol, recruitment, or consent form may be initiated without prior written clearance from the REB. The Board must provide clearance for any modifications before they can be implemented. If you wish to modify your research project, please refer to <http://www.brocku.ca/researchservices/forms> to complete the appropriate form Revision or Modification to an Ongoing Application.

Adverse or unexpected events must be reported to the REB as soon as possible with an indication of how these events affect, in the view of the Principal Investigator, the safety of the participants and the continuation of the protocol.

If research participants are in the care of a health facility, at a school, or other institution or community organization, it is the responsibility of the Principal Investigator to ensure that the ethical guidelines and clearance of those facilities or institutions are obtained and filed with the REB prior to the initiation of any research protocols.

The Tri-Council Policy Statement requires that ongoing research be monitored. A Final Report is required for all projects upon completion of the project. Researchers with projects lasting more than one year are required to submit a Continuing Review Report annually. The Office of Research Services will contact you when this form *Continuing Review/Final Report* is required.

Please quote your REB file number on all future correspondence.

AMD/an

## Appendix C

## Framework for Data-Driven Environments

